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1918-1919



LEGISLATIVE
DOCUMENTS



Vol. V.

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DOCUMENTS

OF THE

ONE HUNDRED AND FORTY-THIRD

AND

ONE HUNDRED AND FORTY-FOURTH

Legislatures

OF THE

State of New Jersey

AND THE

SEVENTY-FIFTH AND SEVENTY-SIXTH

Under the New Constitution

VOL. V.

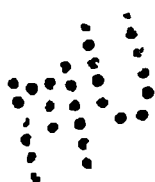
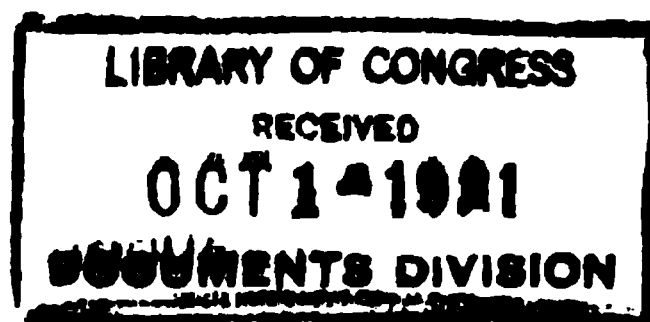
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State Board of Education
AND OF THE
Commissioner of Education
OF
NEW JERSEY
WITH ACCOMPANYING DOCUMENTS
For the Year Ending June 30th, 1918

CAMDEN HIGH SCHOOL

Dedicated April 25, 1918

Located on the highest point of ground in the city, on the edge of Forest Hill Park. Capacity, 1400 pupils.
Cost, \$509,000, exclusive of site

ANNUAL REPORT

OF THE

State Board of Education

AND OF THE

Commissioner of Education

OF

NEW JERSEY

WITH ACCOMPANYING DOCUMENTS

For the Year Ending June 30

1918

SOMERVILLE, N. J.
THE UNIONIST-GAZETTE ASSOCIATION, STATE PRINTERS
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1917-18

MELVIN A. RICE, <i>President</i>	Atlantic Highlands
JOHN C. VAN DYKE, <i>Vice-President</i>	New Brunswick
D. STEWART CRAVEN.....	Salem
JOHN P. MURRAY.....	Jersey City
EDGAR H. STURTEVANT.....	Edgewater
THOMAS W. SYNNOTT.....	Wenonah
ERNEST R. ACKERMAN.....	Plainfield
ROBERT LYNN COX.....	Montclair
CALVIN N. KENDALL, <i>ex-officio Secretary</i>	

1918-19

MELVIN A. RICE, <i>President</i>	Atlantic Highlands
JOHN C. VAN DYKE, <i>Vice-President</i>	New Brunswick
JOHN P. MURRAY.....	Jersey City
D. STEWART CRAVEN.....	Salem
THOMAS W. SYNNOTT.....	Wenonah
ERNEST R. ACKERMAN.....	Plainfield
ROBERT LYNN COX.....	Montclair
OSCAR W. JEFFERY.....	Englewood

Committees State Board of Education

1917-18

Advisory

JOHN C. VAN DYKE, *Chairman*

JOHN P. MURRAY

EDGAR H. STURTEVANT

Law

ROBERT LYNN COX, *Chairman*

JOHN C. VAN DYKE

JOHN P. MURRAY

Vocational

ERNEST R. ACKERMAN, *Chairman*

THOMAS W. SYNNOTT

D. STEWART CRAVEN

Finance and Legislation

THOMAS W. SYNNOTT, *Chairman*

ROBERT LYNN COX

ERNEST R. ACKERMAN

Normal Schools and Teachers

MELVIN A. RICE, *Chairman*

D. STEWART CRAVEN

ERNEST R. ACKERMAN

School for the Deaf

JOHN P. MURRAY, *Chairman*

EDGAR H. STURTEVANT

ROBERT LYNN COX

Manual Training and Industrial School for Colored Youth

D. STEWART CRAVEN, *Chairman*

JOHN C. VAN DYKE

MELVIN A. RICE

1918-19

Advisory

JOHN C. VAN DYKE, *Chairman*

OSCAR W. JEFFERY

JOHN P. MURRAY

Law

ROBERT LYNN COX, *Chairman*

JOHN P. MURRAY

JOHN C. VAN DYKE

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Manual Training and Industrial School for Colored Youth

D. STEWART CRAVEN, *Chairman*

OSCAR W. JEFFERY

MELVIN A. RICE

PART I

REPORTS OF
PRESIDENT OF STATE BOARD OF EDUCATION

AND

COMMISSIONER OF EDUCATION

For year ending June 30, 1918

NEW JERSEY STATE BOARD OF EDUCATION
REPORT OF PRESIDENT

To the Senate and General Assembly of the State of New Jersey:

As required by law, I have the honor to submit herewith the Annual Report of the State Board of Education, together with important accompanying documents, for the school year from July 1, 1917, to June 30, 1918.

M. A. RICE,
President State Board of Education.

STATE OF NEW JERSEY
DEPARTMENT OF PUBLIC INSTRUCTION

REPORT OF
COMMISSIONER OF EDUCATION

TRENTON, December 1, 1918

To the State Board of Education
Gentlemen:

In compliance with the requirements of the School Law, I have the honor to submit herewith the Annual Report of the Department of Public Instruction for the school year ending June 30, 1918.

The school year has been an unusual one, partly because of war conditions. These conditions may be summarized as follows:

1. The shortage of fuel, necessitating the closing of many schools, in certain cases for weeks at a time.
2. The shortage of teachers due to the great demand for labor.
3. The curtailment of the erection and renovation of school buildings because of the scarcity of labor and the high cost of building materials.
4. The large number of war activities, which the schools, however, were glad to undertake.
5. The initial year of the application of federal aid for vocational education.
6. The beginning of the operation of the physical training law.

The first three have been only detrimental; they have impeded progress in the development of the schools. It has been a serious matter for the children to be deprived of part of their education. It is a loss which can never be made up.

These conditions, however, have been accepted as a part of the war situation.

The population of the State, according to the State census of June, 1915, was 2,844,342. The total enrollment of pupils in all

the various departments of the public schools in 1917-18 was 595,413. Of these pupils nearly 50,000 were enrolled in the high schools of the State. The total school enrollment was approximately one-fifth of the total population of the State. To teach these children and youth 17,743 teachers were necessary.

The children were housed in 2181 school buildings. Nearly 600,000 children were furnished, free of cost, books, supplies and the necessary apparatus for teaching. Some 300,000 of them were given some form of manual or industrial training. Approximately 9000 boys, men, girls and women were given some form of vocational education. There were 18,349 children transported to schools at public expense because there were no schools suitable for them in their neighborhood.

As stated last year, all this indicates the vastness of public education in New Jersey.

The cost of the schools, based on the number of pupils present, was 28.8 cents a day; for these children—actually present—this was approximately $5\frac{3}{4}$ cents an hour for each child.

While the aggregate cost is large, in terms of the actual individual child 28.8 cents seems a moderate cost per day, particularly in view of the heavy high cost of living, which affects the conduct of schools as well as the lives of individuals.

How many parents are there in the State who would not be willing to contribute 28.8 cents a day for the care-taking of their children for five or five and a half hours a day, to say nothing of the benefits received by the children from the positive influences of education.

Such is the effort of the State, however imperfectly carried out, to obey the mandate of the Constitution, which reads:

“The Legislature shall provide for the maintenance and support of a thorough and efficient system of free public schools for the instruction of all the children in the State between the ages of five and eighteen years.”

From the foregoing it is seen that the schools are to be as free, thorough and efficient for pupils who are seventeen years of age as for those who are six.

Important facts in the report are summarized as follows:

During 1917-18 the current expenses for operating the schools amounted to \$21,741,295.87. This was an increase of \$2,063,707.15 over the preceding year. Over \$16,000,000 of this amount was expended for salaries of teachers, superintendents and principals.

Janitors' salaries cost \$1,407,379.21. Salaries of attendance officers cost \$152,093.03 and fuel \$934,750.60.

There were enrolled in the schools, including evening schools, 595,413 pupils. Of this number, 33,588 were in the evening schools. In the day schools were 282,789 boys and 279,036 girls, making a total of 561,825 enrolled in the day schools. This was an increase of 17,544 in the day school enrollment.

Of this total of more than one half million pupils 39,858 were enrolled in the kindergartens, an increase of 3164 over the preceding year. There were 267,746 pupils in the first four grades—or, as commonly known, the primary schools. The total number of pupils in grades five to eight inclusive was 167,529.

The total number registered in high schools was 51,048, an increase of 322. The high school registration was, therefore, practically the same as the year before. The fact that there was a slight increase instead of a decrease was gratifying in view of the temptation of young people in high schools to withdraw from school in order to engage in commercial pursuits. Our high school registration for the past six years has been as follows:

1913	1914	1915	1916	1917	1918
33,142	38,099	44,314	50,030	50,726	51,048

The total number of day school pupils reported as neither absent nor tardy was 16,290, a decrease of 7889 from the preceding year.

The total number of pupils enrolled in one-room rural schools was 20,015, a decrease of 1479. The number in two-room schools was 13,962, a decrease of 1245. There was a decrease of 111 in the number of teachers in one and two room schools. These figures are indicative of the progress of consolidation of schools in the State.

The average daily attendance in day schools was 423,750, a decrease of 4124. The average absence of pupils was 18 days, one day more than the preceding year.

There was a decrease of men teachers in all the schools of the State of 79, and an increase in women teachers of 526.

SCHOOL REPORT.

CHIEF DISBURSEMENTS FOR LAST FIVE YEARS

	1914	1915	1916	1917	1918	Increase or De- crease 1918 over 1917	
Salaries of Teachers.....	\$11,415,629 00	\$12,291,576.00	\$13,545,693.37	\$14,449,414.81	\$15,785,310.12	\$1,335,895.31	I
Operation of school plant, includ- ing janitor's services.....	1,778,191.00	1,946,052.00	2,078,377.11	2,349,927.80	2,779,047.66	429,119.86	I
Maintenance of school plant, re- pairs, etc.....	733,827.00	737,318.00	743,027.96	830,955.10	957,625.02	126,669.92	I
Purchase of land and erection of buildings	5,356,639.00	5,729,335.00	5,056,143.72	5,657,609.69	5,440,048.39	217,561.29	D
Transportation	326,881.00	372,920.00	412,405.38	430,728.71	529,527.27	98,798.56	I
Medical inspection.....	198,481.00	215,266.00	230,958.34	258,436.04	284,703.56	26,267.52	I
Manual Training.....	486,281.00	554,287.00	587,979.48	661,213.04	741,146.64	79,933.60	I
Vocational Training.....	109,665.00	167,000.00	206,156.68	211,274.49	276,226.01	64,951.52	I

SOURCES OF INCOME

Moneys for the support of the public schools were derived from various sources, as follows:

1. Income of State School Fund.....	\$250,000 00
Apportioned to counties on basis of days' attendance	
2. Appropriation by Legislature for General Purposes	439,346 69
3. Appropriation from State Railroad Tax.....	3,877,419 50
Apportioned to counties on basis of ratables	
4. State School Tax	7,315,023 54
90 per cent apportioned to counties on basis of ratables; 10 per cent apportioned to counties arbitrarily by State Board	
5. Interest on Surplus Revenue Fund.....	28,159 05
Apportioned to districts by county superintendents on general plan	
6. Local Appropriations,.....	15,854,093 11
Used for current expenses, buildings and repairing, etc.	
7. Other Sources	920,702 08
Appropriated for special purposes	

SCHOOL PROPERTIES

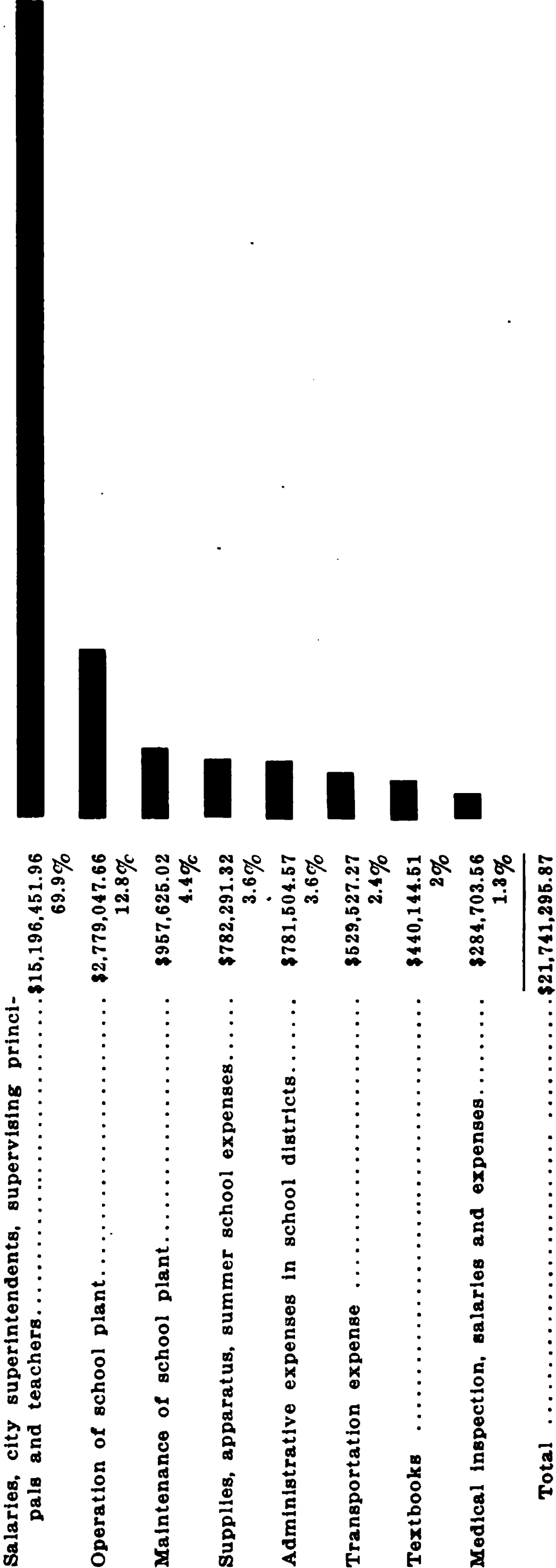
The reported valuation of school properties increased during the year from \$74,000,000 to \$79,000,000. Reported valuations for the past ten years are in round numbers as follows:

1909.....	\$34,000,000	1914.....	\$58,000,000
1910.....	36,000,000	1915.....	64,000,000
1911.....	44,000,000	1916.....	69,000,000
1912.....	53,000,000	1917.....	74,000,000
1913.....	53,000,000	1918.....	79,000,000

It will be seen from these figures how great has been the increase in the valuations of school properties during the ten years.

GRAPH OF CURRENT EXPENSES FOR EDUCATION

July 1, 1917, to June 30, 1918



WAR ACTIVITIES

The war was the cause of many activities in the schools. These were carried on to a greater or less extent in nearly every school in the State. The purpose was patriotic—to help win the war.

Numerous circulars pertaining to the war were issued by the Department. Some of them are reproduced in this report.

It was the first time in more than fifty years that the schools had been called upon to work under war conditions. They were confronted with an unprecedented situation. New obligations were imposed and new ideals created.

The response by superintendents, principals, teachers and pupils was gratifying. It was a call not only of country but of humanity, and most significant of all, a call to service. Throughout the year there was a new seriousness in the work of the schools but also a new joy because of the feeling of service.

I believe that the war work has had a wholesome effect upon the schools and upon the ideals and purposes of teachers and children. There has been a vitality in the work not known before the war. The war work has given a much needed motivation to the every-day life of the schools. The schools have lost by the war, as pointed out elsewhere, but the experiences of the war have not been a total loss.

Space does not permit the enumeration of all the war activities, but here are some of them: helping the Red Cross; not only by generous contributions but in donating sewing rooms to its work; the sale of Thrift Stamps; promoting the Liberty Loans; using manual training shops for producing needed war furniture; food production; food conservation; war gardens; farm work; the farm census; the adaptation of cooking schools to war necessities; community kitchens; tagging coal shovels; helping in the drives for the Y. M. C. A., Knights of Columbus, and kindred organizations; the relief and succor of Belgian and French children.

The tangible results of these activities are shown in the following summary. While these figures must necessarily be somewhat in the nature of an approximation of results, it is believed that they are substantially correct. They reveal the immense amount of work accomplished by the schools of the State. All districts in the State are represented except ten; these ten include one of the largest cities in the State.

The aggregate result is highly creditable to school officials, to teachers, and to the pupils.

Estimated amount of Liberty Bonds sold.....	\$9,045,883
Approximate number of pupils who bought Thrift Stamps and War Certificates	257,610
Approximate amount of Thrift Stamps and War Savings Certificates bought by pupils.....	\$1,444,985
Approximate number of garments made by pupils for war purposes	651,001
Number of teachers who entered war service.....	325
Approximate number of pupils enrolled in Red Cross.....	333,139
Number of high school pupils in actual war service.....	2,020
Approximate number of garments for Belgian and French children or other allies.....	65,187
Approximate number of pupils in Home Gardens Division of the Junior Industrial Army.....	48,696
Number of pupils enrolled in the Junior Industrial Army.....	8,102
Number of boys enrolled in the Boys' Working Reserve.....	1,669
Number of service flags displayed by schools.....	624

In this connection the following letter, addressed to the Commissioner by Mr. Vernon Munroe, Vice-Director of the War Savings Committee for New Jersey, is of interest:

In your annual report I hope you will find space to include a brief mention of the really fine work done by the public schools in the War Savings Campaign. A review of what has been done since December of last year would, of necessity, show that superintendents, principals and teachers have almost without exception been enthusiastic and successful in securing the interest of the pupils in this work. The war savings idea has been welcomed by all the school authorities for its far reaching educational values. It has been taught by them with great enthusiasm, and the results as shown by our figures, even though far from complete, are highly satisfactory. The interest of the teachers has been communicated to the pupils with rare success, and I think it fair to say that the school work is one of the most important features in the War Savings Campaign, both in its educational and its financial results.

Some 1,739 War Savings Societies have been organized in the schools of the State, with upwards of 400,000 members. We estimate the sales of stamps through the schools to the pupils to be about \$1,500,000. Astonishing as this showing is, the greatest and most important results are undoubtedly the teaching of thrift and economy and an increase in the practice of savings.

We appreciate highly the cooperation we have always secured from your office and the entire staff in the state school system.

The following circulars regarding the war and the schools were issued during the year. It is deemed best to reprint them in the annual report because of what may be their historical value.

. NEED OF GOOD SCHOOL ATTENDANCE

PLEASE READ AT THE NEXT MEETING OF YOUR BOARD

To School Officials, Teachers and the General Public:

I have received the following communication from the Governor of the State:

"I have no doubt that you appreciate fully the serious difficulties which are suddenly thrown in the way of public education because of the war. With much of our man-power necessarily called away from activities of ordinary business life and with consequent new responsibilities suddenly thrown upon heads of families and heads of business institutions, there must necessarily follow an extraordinary desire on the part of parents to keep children out of school, and on the part of large employers to secure the services of those who, by their age and other conditions, should be acquiring their education. Likewise, the call to the colors is of such an urgent and positively necessary character, matriculations into colleges and all higher institutions of learning are bound to be fewer than usual and the difficulties of successfully continuing such institutions consequently more numerous.

"In view of this certain situation, I am of the opinion that the Administration in New Jersey should take extraordinary means to maintain a large percentage of attendance in the public schools and also to encourage college education for all young people who have various reasons why they are not available for the military service of the nation. By giving full publicity to the danger of the hour, by enlisting the hearty cooperation of employer and parent and by any other means that may appeal to you as practicable, I trust that the Department of Public Instruction will center its full attention upon this problem and do everything possible to prevent the lowering of standards of efficiency in the schools and of maintaining a high average of attendance at both schools and colleges."

This letter is most timely.

As we are about to begin the work of another school year I again call attention to the circular issued by this Department early in June, entitled "The Schools and the War." I hope that it may be carefully read by teachers and others.

I especially call the attention of school boards, school officials, parents and the public in general to the extreme importance of maintaining schools of all kinds—kindergartens, elementary schools, high schools, colleges, universities, technical and vocational schools—at the highest degree of efficiency during the coming year.

At this time of national stress and crisis the school should do its great work in the preparation of our future citizens—not less well than heretofore, but even better than in the past. It is a truly patriotic service for boards of education, administrative officials and teachers to work to this end. It is a like patriotic service for parents and the public to help these administrative officials and teachers make the schools more useful than ever before. After the war is over the demand will be greater than ever that the great mass of our people be fitted to solve the problems and to meet the new conditions the future has in store for us. In times of war it is well to prepare for times of peace.

School attendance should not diminish; on the contrary, public opinion should be widespread that it is a most effective service to the nation to keep the children and youth in school that they may be well trained to do the work they will be called upon to do later.

The program of the schools calls for intellectual training and for moral training; it calls for physical training and for industrial training; it calls also for civic training. These processes must not be abridged nor lessened. Such a course, even in the midst of war, would be shortsighted and dangerous.

It cannot be emphasized too strongly that the school is the one organized institution for making our democracy safe and capable; for making America safe and capable for democracy. The question of public education is not so much how much does it cost—although every dollar should be carefully and wisely expended—but, rather, the question is, how shall we all, by working toward a common purpose, make the school more useful than ever before?

Concretely—we must have good teachers and superintendents and principals; we must pay them well enough so that they may not be tempted away to other employments where wages or salaries are higher; we must support our attendance officers in the enforcement of compulsory attendance laws; we must give teachers necessary supplies with which to do their work, and we must keep our school buildings in good repair.

Our young women should be encouraged to attend normal schools in order that we may have a sufficient number of trained teachers; our high school graduates—except so far as they may be actually needed for war or industrial service—to go to colleges, universities and technical schools, for there will be an enormous demand after the close of the war for trained and skilled men; our grammar school graduates to attend high schools or vocational schools; and men and women in the industries to avail themselves of vocational training by means of night and other classes.

I confidently believe that the teachers of the State are ready to “do their bit” in teaching better schools than ever before. They, however, cannot do it all in these critical times. They need the support of parents and boards of education in the keeping of children in school. I ask in this the coöperation of parent teacher associations, women’s clubs, churches, labor organizations, granges and other organizations.

May every member of a board of education in our State, may every administrative official, may every teacher, realize as never before his obligation to make our schools thorough and efficient, as required in the constitution of New Jersey.

May parents, may taxpayers, may the great public realize how important is education, the training, the instruction of our young people. Our young people will be called upon to do the work of the world, to bear its burdens, to solve its problems, to assume responsibilities—to make, as has been said, America safe for democracy and democracy safe for America.

C. N. KENDALL
Commissioner of Education

August 22, 1917

THE SCHOOLS AND THE LIBERTY BONDS

"SOLDIERS GIVE THEIR LIVES; OTHERS LEND THEIR MONEY"

To School Officials and Teachers:

You are interested in the promotion of the sale of Liberty Bonds, as is every patriotic American.

The purpose of this letter is to express the hearty approval of the State Board of Education and of this Department of any efforts that you may make or have made to "do your bit" to aid in the success of this Government load. The following are suggestions which may be of service to you in this connection:

1. The purchase of a bond is an opportunity to show patriotism to the country by loaning to the Government money which it needs to prosecute the war.

"Make your dollars fight for liberty."

2. The bonds are offered in such denominations and on such terms of payment that a very small amount of money is enough to begin buying a bond. The lowest denomination is \$50, and many banks in the State have arranged for payments at the rate of \$1 a week.

3. A Liberty Bond is an *investment*; it is not a *gift* to the Government. No investment could be safer than these bonds, for the whole United States—the wealthiest country in the world—is security for them. No security could be better than this. These bonds are exempt from taxation except when owned in larger numbers than any teacher is likely to possess. They offer a rare opportunity for investment of small as well as large savings.

4. Principals and teachers should as far as practicable put in a conspicuous place in all schools the Liberty Bond posters. They can be procured through many banks, through postoffices, and from that local official in each municipality (including townships) who is a member of the Liberty Loan Central Committee.

5. It will be fitting for someone, either the superintendent, the principal, one of the teachers, or some other suitable person, to address the older pupils upon the merits of the Liberty Bond, both from the standpoint of patriotism and as an investment.

6. A few lessons in high schools and in the upper grades of grammar schools should center about bonds in general, and the Liberty Bonds in particular, as an investment. The relation between the rate of interest and the safety of the investment should be emphasized. Bring out the fact that bonds can be bought and sold, and that after the war they may go to a premium. No better lesson in mathematics could be taught than one of this kind.

Dr. John C. Stone, head of the mathematics department of the State Normal School at Montclair, has prepared, at my request, some problems about the Liberty Bond. Here they are:

1. The first issue of Liberty Bonds was for \$2,000,000,000, but the public subscribed for \$3,000,000,000. By what per cent. was the first issue over-subscribed?

2. The second issue, to bear 4 per cent. interest from November 15, 1917,

will amount to \$3,000,000,000. Find how much interest the Government will have to pay yearly upon this second loan.

3. The first issue, paying $3\frac{1}{2}$ per cent. interest, may be exchanged at any time within six months after November 15, 1917, for bonds paying 4 per cent. If all the first issue are exchanged, how much interest will the Government pay yearly upon the two loans?

4. Find the amount of each issue apportioned to New Jersey and find how much interest the State will receive yearly from them. Also find how much of each issue your town took and see to what the yearly interest will amount.

5. Estimating the population of the United States at 100,000,000, to how much per capita will the two loans amount?

6. If one has a \$1,000 and a \$500 bond of the first issue, by how much will his interest be increased each year by exchanging them for 4 per cent. bonds?

7. The second series of bonds are issued in denominations of \$50, \$100, \$500, \$1,000, \$5,000, \$10,000, \$50,000 and \$100,000. The interest is paid on May 15 and November 15 each year. Find the semi-annual payment on a bond of each denomination.

8. How much would one have to invest in Liberty Bonds to receive an annual income of \$200?

9. How much would a man have to invest in Liberty Bonds to pay his daughter's college expenses from the income if the expenses average \$400 each semester?

10. A Liberty Bond may be paid for in four installments: 2 per cent. upon application, 18 per cent. on November 15, 40 per cent. on December 15, and 40 per cent. and accrued interest on January 15. Find the amount of each payment upon a \$50 bond. Upon a \$1,000 bond. Upon a \$5,000 bond.

11. Which gives the greater net yearly income and how much, \$12,500 invested in Liberty Bonds which are not taxable, or the same amount invested in a house that will rent for \$100 per month, if the taxes average \$215 per year, the upkeep is \$135 per year, and the average yearly depreciation in value amounts to 3 per cent. of the purchase price?

12. Which is better and how much: \$10,000 invested in Liberty Bonds, or loaned at $5\frac{1}{2}$ per cent. on note and mortgage, if the taxes each year amount to $1\frac{3}{4}$ per cent. of the face of the note?

13. If interest rates on loans become cheap, say 5 per cent., and tax rates are high, say $1\frac{1}{2}$ per cent. or 2 per cent., would you expect Liberty Bonds to sell for more or less than par? Why?

14. Show that if a Liberty Bond should be bought at par and sold in one year at 101 the investment has earned 5 per cent.

15. If a Liberty Bond bought at par sells for 103 in two years, what per cent. has the investment earned?

These problems are merely typical.

7. The suggestion is made that classes graduating from grammar schools and high schools purchase a Bond and present it to the school. A number of schools did this last spring, and such a gift would be an appropriate one from the classes of 1918.

8. The Treasury Department at Washington has issued a Source Book on the Second Liberty Loan of 1917. This has been generally distributed over the State to school officials, but if any such official or interested teacher has not received a copy, one can probably be obtained by addressing the Treasury Department at Washington. This bulletin of 56 pages is very interesting reading. It describes in graphic detail why the Government needs large sums of money; it then speaks of the resources of the United States; tells how the Government raises money; what a bond means, especially a Liberty Bond; how we were forced into the war; why this is our war; and it concludes with

a stirring patriotic appeal from prominent public men in the country. The contents of this Source Book would be excellent material for the use of teachers in history and civic classes.

9. After reading the Source Book, or otherwise informing himself about the loan—if he is not already informed—the superintendent or the principal might appropriately present the merits of the loan tactfully, forcefully and enthusiastically at a meeting of his teachers.

10. In many districts mass meetings of the school community for the discussion of the Liberty Loan should be called, to which parents and friends could be invited. These meetings should be addressed by the best obtainable speakers, including the principal. Proper provision should be made, not only for speakers, but for music and for the giving out of Liberty Loan literature, including subscription cards. In many communities of the State the principal of the school should lead in this patriotic movement by arranging and organizing such meetings.

We Americans—women as well as men—should feel that we are all partners in this democracy. As partners let each one of us feel his responsibility to coöperate to his utmost with the Government in these critical times.

Among the Nations bright beyond compare!
 What were our lives without thee?
 What all our lives to save thee?
 We reck not what we gave thee;
 We will not dare to doubt thee,
 But ask whatever else, and we will dare!—*Lowell*

C. N. KENDALL

Commissioner of Education

October, 1917

THE SCHOOLS AND FOOD CONSERVATION

To School Officials and Teachers:

As you know, the week beginning Sunday, October 21, and ending Saturday, October 27, is to be observed throughout the country for a campaign for food conservation. It is the desire of the national and State authorities that the schools of New Jersey do their part in making this food campaign a success.

It is not proposed in this letter to state at length the reasons why we should conserve our food supplies. It is perhaps sufficient to say that not only must we feed ourselves but that our allies will make very large demands upon America for foods. When millions of men are engaged in war it is obvious that the production of food is in consequence greatly reduced. Very little food can be sent to the allies except from this country; therefore they depend on America for food, and the supply of food will be a great factor in the winning of this war for human rights and democracy.

I understand that the authorities at Washington will send a food conservation bulletin direct to school officials, who should distribute it promptly among teachers.

Teachers should use this bulletin and other information they may possess in two ways:

First, in impressing upon the children themselves the necessity of food saving and telling them what they can do to bring it about.

Secondly, by asking the children to convey this information to their parents.

The children should also take to their homes circulars, food pledge cards, etc., which the authorities will furnish.

Superintendents, supervising principals and principals should call their teachers together during the week of October 15 and explain the great necessity of food conservation. Many teachers will doubtless need this information in order that they may be fully convinced of the necessity of food saving. If the school officials present this matter with earnestness and enthusiasm the teachers will be likely to share this earnestness and enthusiasm.

If the Government does not supply enough copies of the bulletin referred to in the foregoing so that each teacher may have one, the local school authorities should have enough made so that each teacher may be given a copy.

It is recommended that teachers use the blackboard in presenting to children facts about food. This will of course give the children a more definite impression than merely talking to them about food saving.

Every domestic science and cooking teacher in the State should be familiar with the details of this food saving plan. This is vital. Every one of the thousands of girls taking work in domestic science should have instruction in the preparation of foods that make for economy and saving. If any teacher neglects to do this at this critical stage she is neglecting her duties and is failing to that extent in doing her bit for the country. The work of no domestic science teacher should at this time be of the ordinary sort. This work should be arranged with a view to making these kitchens centers of influence in food saving. The State is a partner with the districts in the maintenance of these school kitchens through the use of manual training funds. The State therefore as the non-resident partner expects the coöperation of the district officials and cooking teachers.

In this and in other matters pertaining to the war school people should not hesitate for a moment to do their part. A food crisis confronts the world and it is serious. Every school official and every teacher should realize that he has a duty to perform and it must be done enthusiastically and promptly.

If further information is required I suggest that you write to the county chairman in your county or other local officials in charge of food conservation.

Very truly yours

C. N. KENDALL

Commissioner of Education

October 11, 1917

THE SCHOOLS AND THE RED CROSS

To School Officials and Teachers:

The schools have a unique opportunity to serve the country and to vitalize their own work by coöperating with the activities of the Red Cross. The Red Cross makes a universal appeal. In these critical times it is doing a work that is as necessary as it is widespread. All that the schools can do for it and similar organizations is so much patriotic service—and necessary service. Moreover, the Red Cross work is of such a character that it appeals to the interests of children, and their response when given the opportunity is generous and whole-hearted. There is abundance of testimony that the Red Cross

work has already put new life into much of the work in domestic art, or sewing, in the schools.

THE JUNIOR RED CROSS

The President of the United States has called upon the school children of the country to take part in the work of the Red Cross. This work will bring to every child an opportunity for patriotic service to his country and its allies. The need for this service will greatly increase as the war goes on.

In order that the work may be organized and made efficient the Red Cross has authorized a new class of membership known as the Junior Red Cross. I desire to direct the attention of school officials and teachers to the purpose of this organization and to ask them to consider the opportunity which it presents to the schools. They will of course use their own discretion as to whether it is advisable for them to further this organization and engage in this work.

INFORMATION AS TO ORGANIZATION

"The dues for Junior Membership are twenty-five cents a year for each pupil, but membership is only granted to the pupils of a school as a whole, and when the principal or his representative has certified to the treasurer of the school fund appointed by the local Red Cross Chapter that a sum equal to twenty-five cents for each pupil in the school has been contributed to the Chapter School Fund. This payment having been made, the treasurer of the Chapter School Fund issues a receipt certificate to the school principal which entitles the school to be known as a School Auxiliary of the local chapter of the American Red Cross, and to display a special Red Cross banner bearing the name of the school, with space for recording succeeding years of membership. The pupils in the school now become Junior Members of the Red Cross and are entitled to wear the Red Cross membership button. These buttons may be obtained through the local Red Cross Chapter."—*From a circular sent out by the Junior Red Cross.*

Dr. Henry N. MacCracken, of Vassar College, head of the Junior Red Cross, has appointed an advisory committee for the work in New Jersey: Mrs. Iris Prouty O'Leary, State Department of Public Instruction, Chairman; Miss Evelyn B. Hartridge, Hartridge School, Plainfield; Mrs. Edward F. Chamberlin, East Orange. Miss Alice Campbell is the secretary of this committee and all inquiries in regard to the organization of junior auxiliaries should be addressed to her at the Atlantic Division, American Red Cross, 44 East 23d Street, New York City.

KINDS OF WORK THAT MAY BE DONE

Schools should work in coöperation with the local Red Cross organization, consulting officials as to articles needed and specifications for them. It is also feasible for the schools to share in the productive work of other patriotic organizations, such as the National Surgical Dressing Committee, National League for Women's Service, etc. These organizations will furnish models and sometimes material to the schools. Pupils in the commercial department

may secure practical experience by doing clerical work for the patriotic organizations in their community.

A careful study of the possibilities of Red Cross work is recommended to all teachers of sewing. The variety of articles needed is so great that the productive skill of all grades of pupils may be utilized. Under careful supervision much of the emergency sewing may be substituted for the regular domestic art work without sacrificing educational values. Pupils will produce more and better work because of this new incentive and interest. The following list of urgently needed supplies is suggestive of the great variety of work which can be done:

Muslin bandages (such as slings, T bandages and body binders)
Hospital linens
Operating room linens
Clothing for patients
Knitted articles of all kinds (from wipes to stockings)
Comfort bags
Snipping pillows

WORK THAT SCHOOLS HAVE ALREADY DONE

The following instances have been selected from the many schools in the State already doing Red Cross work:

JERSEY CITY—DICKINSON HIGH SCHOOL

In the seven weeks ending June 30, six complete boxes were filled, containing 3,120 items, as follows:

84 Operating gowns	48 Bathrobes
84 Operating caps	48 Hospital bedshirts
84 Operating helmets	48 Shoulder wraps
276 Operating sheets	48 Bedsocks
504 Operating towels	480 Handkerchiefs
84 Hot water bag covers	480 Substitutes for handkerchiefs
84 Operating leggings	480 Napkins
96 Pairs pajamas	192 Tray covers

ATLANTIC CITY—VOCATIONAL SCHOOL

100 Hospital sheets	84 Arm slings
175 Hospital shirts	67 Knitted scarfs
48 Bathrobes	77 Knitted sweaters
200 Red Cross flags	312 Blanket squares
4 T bandages	24 Sponges
26 Abdominal bandages	22 Pairs socks
46 Operating caps	64 Pairs wristlets
64 Bedsocks	3 Pairs kneecaps
14 Helmets	3 Helmets
70 Pajamas	15 Washcloths

MILLVILLE, CUMBERLAND COUNTY

Grades 7 and 8
48 Hospital handkerchiefs
12 T bandages
30 Triangular bandages
36 Body bandages

Grades 1 to 4
1300 Red Cross savings boxes
75 Pillow snippings
300 Portfolios for postcards for hospitals

Tinfoil is being collected in all grades to sell at 42 cents a pound.

Little kiddies too can help
WHAT BLOOMFIELD'S CHILDREN ARE DOING

A busy schoolroom
RED CROSS WORK IN PLAINFIELD

COMMISSIONER OF EDUCATION.

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HACKENSACK, BERGEN COUNTY

The pupils of the State Street School, in addition to sewing and knitting, made a house to house canvass for old linen, and from the material collected made 360 handkerchiefs, 240 napkins and 192 tray cloths for hospital use.

ESSEX COUNTY—VOCATIONAL SCHOOL

In addition to making garments and bandages, the Essex County Vocational School loans its workrooms, equipment and teachers for use by the Red Cross outside of school hours.

LYNDHURST AND BERGENFIELD, BERGEN COUNTY

Lyndhurst has made over 100 pillow slips.

Bergenfield has been very active, making two or three hundred articles required by the Red Cross, varying from knitted sweaters made by the older girls to handkerchiefs, etc., made by smaller children. Work has also been done for the comfort of Camp Merritt, which is near.

GLASSBORO, GLOUCESTER COUNTY

The following articles have been made or are in process of making: 40 triangular bandages with tape, 32 bedsocks, 5 hospital shirts, 85 pillow cases (ticking), 9 pairs pajamas. Several high school girls have made sweaters outside of school but with the aid of the teacher.

LITTLE FALLS, PASSAIC COUNTY

24 Gauze cup covers	12 Pillows
24 Triangular bandages	12 Elbow rests
24 Pairs bedsocks	12 Pillow slips
18 Wool nightingales	36 Knitted washcloths
12 Helmets	

FLEMINGTON, HUNTERDON COUNTY

The Red Cross membership is made up of both boys and girls. Naturally the girls contribute most of the work. This school year they have made 75 garments, shoulder capes and socks. The girls are divided into three groups and are working under a Faculty Adviser, who receives her instructions from the Red Cross authorities.

There is also a committee of about thirty girls who have agreed to act as collectors for the local branch of the Red Cross during the year. These girls visit each house in their district and secure the pledges and collections and turn them over to the committee under whom they are working.

MERCHANTVILLE, CAMDEN COUNTY

It was decided to have the sewing classes here do Belgian Relief work rather than Red Cross work. The number of pieces completed or nearly completed is as follows:

SCHOOL REPORT.

40 Petticoats
 45 Sewing bags
 35 Nightgowns
 15 Napkins
 12 Tray covers
 25 Handkerchiefs
 10 Eye bandages
 35 Pairs bedsocks

12 Pairs bootees
 6 Pairs drawers
 2 Drawer bodies
 30 Bandages
 12 Dresses
 15 Sacks
 6 Six inch squares of saphyr for
 soldier's blanket

BOROUGH OF MIDDLESEX, MIDDLESEX COUNTY

100 Mouth wipes
 14 Sweaters
 1 Pair bedsocks
 5 Pairs socks
 3 Convalescent robes
 6 Hospital shirts
 8 Pajama suits

7 Mufflers
 12 Washcloths
 46 Utility kits
 50 Pillows
 50 Pillowcases
 12 Abdominal bandages
 3 Pairs wristlets

THE CHRISTMAS MEMBERSHIP DRIVE

The Red Cross wishes to enroll 15,000,000 members in the United States by Christmas Day. New Jersey's quota of this number is 1,000,000.

For this Christmas Membership Drive a special organization has been created in each of the twenty-one counties of New Jersey, to carry on an inspirational and educational campaign, from Saturday, December 1, to Monday, December 17.

The drive for members will be started Monday, December 17, and will end Monday, December 24.

The preliminary campaign will be for the purpose of informing the general public as to the exact needs among soldiers for Red Cross work on the battle front of Europe. For every American soldier there should be ten Red Cross members. Every man, woman and child of New Jersey who can afford \$1.00 for Red Cross membership should enroll for the year ending Christmas Day, 1918.

This preliminary campaign will be conducted by means of public meetings, distribution of Red Cross literature, and other publicity, so that when the Membership Drive opens December 17 every person in New Jersey should know what Red Cross membership of those at home means to the brave boys in the trenches.

The State Board of Education, at its monthly meeting held December 1 at Trenton, endorsed this Christmas Membership Drive.

As a part of the public school system of New Jersey you are requested to bring to the attention of pupils of appropriate age in your district the fact that 1,000,000 Red Cross members will be sought in New Jersey from December 17 to December 24.

The Red Cross Christmas Membership Drive Chairman in your county will place in your hands all the literature that is necessary to explain this campaign. Teachers are requested to coöperate by bringing this literature to the attention of each class of children, the teacher to urge the children to carry the information home, to the end that between December 1 and December 17 full details of the campaign will be in every household in the State.

Following this inspirational and educational campaign, Red Cross workers will make the Christmas Membership Drive. You can be of great assistance in the work of preparing for the drive by having a Red Cross period in every school between now and December 17. You will receive a supply of Red Cross pledge cards from the Red Cross County Chairman of your county.

Yours very truly

C. N. KENDALL

Commissioner of Education

November, 1917

THRIFT STAMPS AND WAR CERTIFICATES

To the School Children of New Jersey:

This is a letter about the thrift stamps and the war certificates. It is also about some other things.

The use of these stamps and certificates will be a benefit to you who are children and to some others who are not children.

It takes only 25 cents to start a thrift card. Many of you can earn this money. Some of you can save it from what you might spend for candy, gum or soda water. Others can walk to and from school and save carfare. Walking is good exercise. Still others can go to the "movies" less and buy thrift stamps more.

Sixteen of these thrift stamps, or \$4.12, now buys a war certificate, which is as good as a liberty bond. These certificates have been called "baby bonds." When you own a thrift stamp or baby bond you become a partner with Uncle Sam. He wants you for a partner. He needs your money.

If you should keep this certificate—as I hope you would be able to do—until 1923, five years from now, you would get \$5 for your investment of \$4.12. This would be a pretty good rate of interest considering the good security you would have. What rate of interest this would be some of you older pupils can figure out. However, if you should need the money before 1923 Uncle Sam has provided a way to give it back to you.

When I was a boy they used to say "Save something for a rainy day." Do you know what a "rainy day" in this sense means? I am sure you do.

In every grammar or high school you should ask permission from your teacher to appoint a committee of three or five pupils to visit the postoffice or bank to find out more about these stamps and certificates. The postmaster or the man at the bank will be glad to see you. You will have a good time reporting to the teacher and class what you have found out.

I want you to think that money invested in these stamps or certificates is a loan to the Government, a loan with the best of security—the security of Uncle Sam. Your teachers of arithmetic have explained to you how necessary it is to consider the kind of security you get when you loan money. The Government needs the money just now. You know why.

It is well to display the flag, to salute it, to pledge allegiance to it. It is good for you to sing *America* and the *Star Spangled Banner* and the *Battle Hymn of the Republic*.

But you children, in these war times, when some of your fathers and brothers and friends are soldiers or are training to be soldiers, should show your love of country by doing something, by sacrificing something, by practic-

ing some self-denial. The way of this sacrifice and self-denial is for you to decide.

What can you do? Not only can many of you buy thrift stamps, and perhaps certificates, but all of you—one hundred per cent of you—can help to save paper and pencils and the other supplies the school furnishes. You can take good care of the school books. All these cost money. At home you can help mother and father, when it costs so much to live as it does now, to save sugar and meat. You will not waste food of any kind. You will help to save coal, gas and electricity. Some of you will do more work, more chores about the house, than you have done before, and in this way too you will help to save.

I am well aware that thousands of New Jersey children are doing all these things without any admonition from teachers or principals or from me. All honor to the pupils who are rendering such fine service.

Lord Kitchener, a celebrated Englishman, now dead, once said: "Either the civilian population must go short of many things to which it is accustomed in times of peace or our army must go short of munitions and other things indispensable to them."

Please ask your teacher if you may write this statement on the blackboard, study it—big words and all—and then talk about it.

I am sure the children of New Jersey will respond to the proclamation of the Governor of the State about saving and the purchase of thrift stamps.

To waste nothing, to save, to lend to the Government—this is the part of patriotism.

Respectfully

CALVIN N. KENDALL

Commissioner of Education

December, 1917

SERVICE FLAG

To Teachers and School Officials:

The following is a good suggestion made by Assistant Commissioner Scott:

One way of stimulating the interest of pupils in the service of our soldiers and sailors in the war is through the display of the service flag.

It would seem fitting that every public school that has had some part in the training of a boy who is now becoming a soldier or sailor should display a service flag. This flag, displayed in the one-room school, or in the elementary or high school in a town or city, will help to show the boys and girls who are now attending the school what is being done by some former pupil or pupils.

In furnishing the children with democratic ideals the school is only second in importance to the home. Schools should be encouraged to show their pride in those whose training has been partly received in them and whose duty it now is to fight for the ideals for which the schools stand.

The service flag in a school should make the children more appreciative of what our country means and at the same time give them greater pride in their school.

Such service flags placed in the schools as well as the homes would be of some encouragement to our soldiers in training. They would see in a real sense how the young boys and girls back at home are trying to uphold the soldiers who are fighting the country's cause.

It would not be very difficult for the teachers or pupils—preferably the latter—of a school to procure the names of soldiers who had formerly been its pupils.

Pupils might appropriately, as a part of their English exercises, write to a soldier at the front or in training a letter or letters expressing their pride in the fact that he was formerly a pupil in the school and asking what, if anything, the school could do for him.

It is possible that the school through its Red Cross and other activities might send to such former pupil some article or articles which he might need.

A service flag could be procured for a school at very little cost. The material for a small flag—10 by 18 inches—costs approximately 12 cents. The boys could readily give this amount, perhaps earning it for the purpose. In practically every school in the State the girls would be able to make the flags, and this would be good employment for them. The only expense, then, would be the cost of the material.

All this would be one way of showing honor to the former boys of the public schools who are now answering their country's call.

Respectfully

CALVIN N. KENDALL

Commissioner of Education

Approved

MELVIN A. RICE

President State Board of Education

December, 1917

FOOD CONSERVATION

To Superintendents, Supervising Principals, and Boards of Education:

New Jersey schools have reason to be proud of last year's record in food conservation. According to reports which have come into this office the work done through the coöperation of the school authorities of the State resulted in approximately 60,000 jars of fruit and vegetables. More than 3,500 housewives were given instruction in canning and drying by means of classes held in the public schools. Still larger numbers of women were reached by means of 850 lectures and demonstrations given under school auspices. It was also reported that in the domestic science classes of the regular schools 2,200 lessons in canning and drying were given to the pupils and over 4,000 cooking lessons in the use of "war time cooking." Every school and every teacher taking part in this work can feel that they have given substantial aid in winning the war.

EVERY SCHOOL KITCHEN IS NEEDED THIS YEAR

An Idle Kitchen is a Spiked Gun

Every school that has a kitchen should use it. This is no time for closed kitchens or idle equipment. After regular class hours and during the summer all kitchens should be in service as places for instruction or places for production.

Last year 40 districts kept school kitchens open during a part of the summer. There are 483 school districts in the State. Every one of these districts should

SCHOOL REPORT.

operate at least one conservation center during the canning season. A complete cooking equipment is not necessary for this work. Cold pack canning requires few utensils. A stove and a wash boiler are the principal items.

Wherever a board of education regularly employs a teacher of domestic science she should be used to give instruction in canning and drying during the summer if possible. If the board of education does not have a regular teacher of domestic science a woman can frequently be obtained from the Farm Demonstration Bureau of the State Department of Agriculture to give demonstrations in canning and drying. If such a woman is not obtainable some competent housewife in the neighborhood can often be induced to give the necessary instruction. In any case the school building is the natural center for this instruction and should be used to its full capacity for that purpose.

THERE IS NEED OF MORE PRODUCTION

Wherever possible school kitchens should be organized for production on a large scale. Fruit and vegetables in enormous quantities will be needed this coming winter. Commercial canneries cannot supply the demand and there is need of utilizing every available agency for this purpose. Schools which do not market their product in their own communities or through regular channels can be assured that it is needed by the hostess house and recreation centres established at the cantonments, the army hospitals and the Red Cross.

THE EXTENDED USE OF SCHOOL KITCHENS SHOULD BE MADE PERMANENT

Last year this work was generally regarded as an emergency measure which would help relieve the threatened food shortage of one winter. We are now facing the facts of a *long continued food shortage*. The help of the school kitchens will be needed as long as we are at war and for some years thereafter. We have only begun to realize the part which our schools should take in this means of defense. Last year's returns have already shown the school kitchens to be an asset which we cannot afford to neglect. School officials should now prepare to take this work off its emergency footing and put it on a more permanent basis.

THE SCHOOLS SHOULD COOPERATE WITH LOCAL ORGANIZATIONS

Last summer the work of conservation was carried on not only by the schools but by the schools coöperating with local organizations such as women's clubs, citizen committees and the Farm Demonstration Bureau. In some instances these organizations supplied workers and funds while the board of education authorized the use of school kitchens. In other cases the schools assumed full responsibility for carrying on the work. The method of procedure will probably not be the same in any two communities. It will be desirable, however, for communities to utilize every resource which they have for the purpose of food conservation. The first step in this direction is to organize the schools for active and permanent service.

CALVIN N. KENDALL

Commissioner of Education

May 10, 1918

RELATIVE TO GRADUATING EXERCISES IN JUNE, 1918

To Superintendents and Principals of Schools:

It is suggested that the graduating exercises in both elementary and high schools this year have for their general theme "Our Participation in the World War."

As subjects under this general heading the following are suggested: The causes of the war; Why the United States entered it; The great issues at stake; What the nation is doing to win the war; What the community is doing to help win the war; What former pupils of the schools are doing in the service—speaking of concrete examples and using the service flag; The fine spirit of loyalty and service shown by our young men, and also by the women who remain at home, as shown by their encouragement of the men and their activities in various lines of war service.

In both elementary and high schools it would be very appropriate to have participants in the program tell how the war has already affected the activities of the schools, Red Cross work, conservation of food, home gardens, Liberty Bonds, Thrift Stamps and Certificates, etc.

As a further suggestion, why not have the pupils give some physical training work on the stage, or outdoors if practicable? This would be an exhibit of the physical training work of the school to show how the school is trying to carry into practice the new physical training law. It would be well if some pupils, before the exercises begin, would speak of the physical training law as essentially a question of "preparedness." It requires little stretch of the imagination to say that this is another subheading under the general head "Our Participation in the World War."

A program of this sort would be vastly more interesting and valuable than some of the conventional ones which were once in order.

Would it not be out of place in a graduating exercise this year, when there are so many stirring problems, to read the conventional essay or deliver the conventional oration on some general theme disconnected with the war?

In making the program the principal should feel that the winning of this war is the most important question that has ever been before the men, women and children of the nation. A program should stimulate the patriotism of the audiences and should show the public how actively the schools are engaged in winning the war.

I think that no school should employ an outside orchestra or outside talent for its music this year. The rendering of stirring patriotic songs or patriotic instrumental selections by the *school* orchestra is of vastly more interest to an audience than outside musical talent, however good it may be.

Mr. Meredith assures me that the graduating programs in our high schools reflect the real work of the schools to a much greater degree than they formerly did.

An excellent suggestion has been made by a principal in the State concerning the graduation present. This suggestion, chiefly in the words of the principal, follows, and the Commissioner is glad to heartily endorse it.

"At this time of our national crisis, when the watchword of the hour is economy, and the government is urging us not to buy useless or luxurious

goods why not give your son or daughter United States War Savings Stamps or War Certificates for a graduation present?"

Respectfully

C. N. KENDALL

Commissioner of Education

May, 1918

NEW TEACHERS AND THEIR PREPARATION

The following tables show the numbers, the preparation and the training of teachers who entered the schools of the State during the year ending June 30, 1918, with corresponding figures for the preceding six years:

NUMBER OF TEACHERS

	1912	1913	1914	1915	1916	1917	1918
Total number of new teachers entering the schools							
In schools outside of cities....	1006	1055	1195	1201	1142	1144	1380
In city schools.....	721	763	916	854	811	814	851
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total new teachers.....	1727	1818	2111	2055	1953	1958	2231
This number was divided as follows							
In high schools outside of cities	126	181	223	252	217	210	237
In high schools in cities.....	91	119	208	225	210	161	151
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total high schools.....	217	300	431	477	427	371	388
In elementary schools outside of cities							
	880	874	972	949	925	931	1136
In elementary schools in cities.	630	644	708	629	601	641	683
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total elementary schools....	1510	1518	1680	1578	1526	1572	1819
In vocational schools outside of cities							
	....	....	....	....	....	....	7
In vocational schools in cities..	....	....	....	....	....	....	17
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total vocational schools.....	....	....	....	....	....	....	24
Included in the total were teachers of industrial subjects (manual training, domestic science, etc.)							
In schools outside of cities....	14	24	39	47	36	41	67
In schools in cities.....	46	51	61	71	56	66	69
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total for industrial subjects	60	75	100	118	92	107	136

Also included were teachers of special subjects (music, drawing, etc.)

In schools outside of cities....	23	55	18	28	36	46	47
In schools in cities.....	42	18	18	22	28	65	119
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total for special subjects....	65	73	36	50	64	111	166

PREPARATION OF THESE TEACHERS

	1912	1913	1914	1915	1916	1917	1918
Graduates of New Jersey State Normal Schools							
Entering schools outside of cities	209	211	287	305	402	410	558
Entering city schools.....	84	112	211	231	281	307	267
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total	293	323	498	536	683	717	825
Graduates of City Training Schools in New Jersey							
Entering schools outside of cities	30	22	24	22	20	20	28
Entering city schools.....	232	228	231	171	120	123	153
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total	262	250	255	193	140	143	181
Graduates of Colleges, Universities and Technical Institutions							
Entering schools outside of cities	194	256	248	280	273	251	288
Entering city schools.....	161	174	200	196	209	202	217
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total	355	430	448	476	482	453	505
Graduates of Normal Schools without the State							
Entering schools outside of cities	367	384	387	315	223	213	275
Entering city schools.....	208	214	230	203	146	132	153
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total	575	598	617	518	369	345	428
With less than Normal School, College or University Training							
Entering schools outside of cities	206	182	249	279	224	250	231
Entering city schools.....	36	35	44	53	84	50	61
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total	242	217	293	332	308	300	292

It appears:

1. That the number of new teachers required for the day schools

of the State was much greater than in any recent year. This fact was undoubtedly due to war conditions. Many withdrew from teaching to enter the industries, where the financial remuneration was much greater, and in consequence there were more vacancies to fill. The following table for the past seven years is self-explanatory:

	1912	1913	1914	1915	1916	1917	1918
Whole number of teachers in							
State	12,652	13,312	14,014	14,811	15,571	17,296	17,743
New teachers required.....	1,727	1,818	2,111	2,055	1,953	1,958	2,231
Proportion of new teachers to							
whole number of teachers	13.7%	13.7%	15.1%	13.9%	12.5%	11.3%	12.6%

Substantially one teacher out of eight in the State was new to the service last year. The teaching service of the average teacher in New Jersey appears to be eight years.

The country schools, as usual, suffered most from changes in teachers.

2. That the number of new teachers who were graduates of New Jersey normal schools has increased from 293 in 1912 to 825 in 1918. In 1912 the number of these teachers was 19.4 per cent of the whole number of new elementary teachers in the State. In 1918 the percentage was 45.3. This was practically the same percentage as the year before.

The output of our present State normal schools is not likely to be substantially increased with their present facilities. Less than one-half of our trained teachers in the elementary schools are graduates of our own normal schools, but whatever proportional increase there may be in the future must be supplied by additional facilities or schools.

The number of normal school graduates employed in the elementary schools from without the State was greater than in the two previous years. There were 428 in all of these graduates, or about one-half as many as from our own State normal schools. This was 23.5 per cent of the total number of elementary teachers employed. In 1912 this percentage was 38.1.

As stated last year, it would be unfortunate for the schools of New Jersey if we should fill all our vacancies from the normal schools within the State. This would be a process of inbreeding which would not be healthful for the interests of the children. It has been fortunate that our boards of education have been able to

secure some of the best teachers from other states who are anxious to come to New Jersey because of better salaries existing here, because of the professional recognition of teachers by State laws, because of the attraction of working under superintendents who would help them in service, and because of the generally pleasant conditions that teachers find in the New Jersey schools.

3. That the number of teachers who entered upon the regular work of the elementary schools with no training other than that afforded by six weeks of summer school was 200, or 11 per cent of the whole number of elementary teachers. This was a decrease of 16 from the preceding year. Of these 200, with only a summer school training, 94 per cent entered the country schools.

4. That the number of new high school teachers was 388. Of these, 61.6 per cent entered high schools outside of cities.

PURCHASE OF THE NORMAL SCHOOL AT NEWARK

The State at present has the use of the normal school in the City of Newark for the training of teachers. The school began operation under the control of the State in September, 1913, five years ago.

The details of an agreement for the use of the school between the State Board of Education and the Board of Education of the City of Newark are set forth as follows by Mr. Robert Lynn Cox, of the State Board of Education.

The Newark State Normal School was built and equipped by the City of Newark at its own expense as a city training school for teachers. In accord with a law passed in 1913, the city entered into a contract with the State Board of Education under which the school was taken over by the State and since that time has been operated as one of our most important State Normal Schools. It began in September, 1913, with a class of 222 transferred from the old City Normal School, to which was added an entrance class of 220, making an enrollment of 442. It had then a faculty of 26. At the end of five years the school had an enrollment of 882 students and a faculty of 58. The present enrollment comes from fifteen counties of the State, chief among which, very naturally, are the counties of Essex and Hudson. It should be noted, however, that the enrollment of Newark students has not increased to any considerable extent, having begun with 222 in 1913 and ended with an enrollment of 244 for the year 1917. The location of the school is most desirable in that there are 50 high schools within comfortable commuting distance. The building itself is a model of its kind and has been pronounced by architects as one of the finest Normal School buildings in the country.

On February 4, 1916, the Board of Education of the City of Newark

adopted a resolution whereby it offered to sell the Newark Normal School, together with the equipment contained in the building, for the sum of \$420,000, payable in five yearly instalments of \$84,000 each, with interest on unpaid balances at the rate of 4 per centum per annum—the title to remain in the City of Newark until final payment was made. It is said that the State did not bind itself to purchase on these terms, but the State Board of Education did agree to use its influence with the Legislature to obtain the appropriations needed to make the purchase. Each year since a request has been made for the necessary appropriation, but in no case has the item been allowed. Last year the State Board of Education requested the appropriation of an amount sufficient to cover two instalments with interest on the unpaid balance, but again the item was stricken from the appropriation bill. Therefore, the city of Newark has received nothing under the offer it made, nor has it been given any reason to believe that it would ever be paid by the State the amount for which it offered to sell the building.

In the meantime cost of construction has increased enormously and the building in question, based upon what it would cost to reproduce it today, has largely increased in value. Against this there is of course the item of depreciation from age and use.

After it became apparent that the Legislature did not intend to appropriate money at its session in 1918 to cover the instalments that were past due under the offer made by the Newark Board of Education in the resolution of February, 1916, the Newark Board of Education passed a resolution under date of March 30, 1918, rescinding its previous offer to sell the building at the price and upon the terms mentioned above. Copy of this resolution was served on the State Board of Education shortly thereafter.

The original contract entered into between the State of New Jersey and the city of Newark, whereunder the building in question was taken over by the State to be operated as a State Normal School, contained a provision as follows:

"This agreement may be terminated by either party upon giving to the other two and one-half years' notice in writing, such notice to end on either the 30th day of June or the 31st day of January."

At its meeting on March 30, 1918, the Newark Board of Education adopted the following resolution:

"Resolved, that the agreement entered into between the Board of Education of Newark, in the County of Essex, and the State Board of Education, by which the State Board of Education assumed control of the Newark Normal School located at Fourth and Belleville Avenues in the city of Newark and owned by the Board of Education of Newark, be and it is hereby terminated and that in accord with said agreement a notice be served on the State Board of Education that on January 31, 1921, the Board of Education of Newark will resume the control and care of said Newark Normal School."

Copy of this resolution was served upon the State Board shortly after its adoption and thereby was put into effect a rescission of the contract which will end on January 31, 1921. This means that the class which will enter the school in February, 1919, will be the last class which can be accepted for a full two year course.

The State Board of Education very naturally views with concern the situ-

ation that confronts it. The Newark Normal School is badly needed and its loss to the State would be a serious blow. Already signs of disintegration appear in the withdrawal of some of our best teachers under the belief that the school will close pursuant to the attitude taken by the city of Newark and that it would be well for them to obtain other employment at this time while the demand for teachers is so great as to enable them to get very desirable positions.

I am told that there has never been a time in the history of the State when there was a greater demand for teachers than at present. Many of the schools were reported, on September 14, 1918, to be without teachers. We were thereby induced to modify our rules so that they would not only permit the securing of teachers from without the State, if that is possible, but also permit the employment of members of the senior classes in our normal schools prior to their graduation. While to some extent this should be deemed a war measure, our Board has known for some time that the normal school facilities of the State are inadequate and should be increased rather than diminished. It was because of these facts that we were able to induce the Legislature to appropriate money for a South Jersey normal school, for which we have purchased a site and on which a building will be constructed as soon as building construction again becomes possible at reasonable cost.

Now, as to a solution of the Newark school problem, I wish to say that, as a representative of our State Board of Education, I have had a number of conferences with a representative of the Newark Board. I have learned that the city of Newark is not without appreciation of the value of the school and that to a considerable extent it may be said to serve especially the needs of that city. About one-fourth of the students in the school are residents of the city of Newark. At the same time it feels that inasmuch as the State has shown no evidence of intent to purchase the building under the favorable offer it made, it should, in justice to itself, regain possession of the building as against the time when it will be in sore need of such a building for high school or other purposes.

The embarrassment of the State Board of Education is increased by the fact that hitherto its requests upon the Legislature have been unheeded and that it is without power to negotiate with any certainty that what it might promise would be fulfilled. I see no way in which this can be remedied at the present moment, since to alter the legal status of affairs will require action on the part of the Legislature, but I do suggest that inasmuch as the State is about to make up its budget for the year 1919-20, it should include an amount sufficient to cover at least two of the five annual instalments of \$84,000 each and interest at 4 per centum on the sum of \$420,000 since November 1, 1916. With such an item in the appropriation act of 1919, to which should be added the passage of a law that would authorize the State Board of Education to enter into a definite and binding contract for the purchase of the building and the payment of the remaining instalments, I believe the State could induce the Newark Board of Education to sell the building to the State.

It is imperative that the ownership of this school be acquired by the State during the session of the Legislature of 1919 if it is pos-

sible to do so upon reasonable terms. If the school should revert to the City of Newark it would be necessary to build an additional State normal school in the metropolitan part of the State contiguous to New York City.

To be sure, we have the State Normal School at Montclair. But this school is by no means adequate in its facilities to meet the demand and the need for normal school training in that populous part of the State. According to the State census of 1915 the population of the five counties in the northeastern section of the State was as follows:

Bergen	178,596
Essex	566,324
Hudson	571,371
Passaic	236,364
Union	167,322
	<hr/>
	1,719,977

That is to say, 60.4 per cent of the population of New Jersey live in these five counties.

What has this school done and what is it now doing for the training of teachers? How useful is the school to the State?

From this school have been graduated in the past five years 1475 teachers who have entered the teaching service of the State. Not to exceed 37.2 per cent of this number have entered the Newark schools.

From the Newark School 452 students were graduated in the February and June classes of 1918; from the Montclair and Trenton Normal Schools combined there were graduated 550 students.

The graduates of the school in 1918 were as follows by counties:

Bergen	9	Monmouth	9
Cape May	1	Morris	15
Essex	164	Passaic	21
Hudson	126	Somerset	10
Hunterdon	2	Sussex	8
Mercer	1	Union	54
Middlesex	29	Warren	3
Total	452		

It is to be seen that these graduates were from 14 counties. Of this number, 164, or only 36.3 per cent, were from Essex County; of these, 144 were from Newark. Two hundred and

eighty-eight, or 63.7 per cent, were from the other 13 counties represented.

These graduates are engaged as follows:

Teachers	422
Young men in service of government.....	20
Young women who married (are not teaching).....	4
Young women who went to college.....	3
Young women who entered business (government work)...	3
	<hr/>
	452

Those who are teaching are in the following counties:

Bergen	44	Morris	13
Essex	134	Passaic	19
Hudson	100	Salem	1
Hunterdon	6	Somerset	7
Mercer	3	Sussex	3
Middlesex	48	Union	33
Monmouth	11		

Of these graduates, 134, or 29.6 per cent, are teaching in Essex County, 79 of them in Newark.

In the fall of 1918 there are enrolled at the Newark Normal School 726 students preparing to become teachers. These students are from the following counties:

Bergen	26	Morris	30
Cumberland	1	Passaic	30
Essex	263	Somerset	6
Hudson	225	Sussex	4
Hunterdon	6	Union	76
Middlesex	37	Warren	3
Monmouth	19		
Total		726	

Of this number 263 came from Essex County, of whom 207 are from Newark.

From these facts it is seen: (1) how much the normal school contributes to the schools of the City of Newark; (2) how much it contributes to the territory in the northeastern part of the State outside the City of Newark; (3) how necessary the school is for the supply of trained teachers.

I have heard as an objection to the purchase of the Newark Normal School that if this school became a State school we should then have two normal schools in the same county. I am unable to see that this objection should be considered. What should determine the location of a normal school is convenience of access for the students in the territory it will serve. There should be no other consideration. The State of Massachusetts has two normal schools in a single county—a county only one-third the size of Essex.

I have shown in previous reports that a normal school draws the great mass of its students from the immediate vicinity of the school. There is an abundance of figures which show how true this is. A school in the northeastern section of the State will not draw any considerable number of students from the southern part of the State. Conversely, the new normal school in the southern part of the State will not draw many students from the northern part of the State. The figures that I have quoted are illuminating on this point. It is absolutely imperative that there be an additional normal school in the northern part of the State where there is so large a population and where in consequence large numbers of trained teachers are required.

This school is vitally necessary to the welfare of the elementary schools of New Jersey. I cannot say this with too much emphasis. A new school would cost much more than the amount for which this school can probably be purchased. There has been a feeling that the City of Newark would profit by the State purchase of this school. At the price at which the school could have been bought a year ago it was a bargain.

It is to be hoped that the State Board of Education and the Newark Board may agree upon such a price for the purchase of this school that the Legislature will not long hesitate to provide the funds for its purchase.

I will not present any argument as to the value of the trained teacher; that is a question out of the realm of debate among intelligent persons. The Legislature has recently appropriated money for the building of a normal school in South Jersey. The State, in common with other progressive states throughout the country, is committed to the policy of training teachers for its elementary schools.

SALARIES OF TEACHERS

The total amount of salaries paid day school teachers in the State, not including superintendents, assistant superintendents or evening school teachers of any kind, was \$15,785,310.12, which was an increase of \$1,335,895.31 over the preceding year.

The average salary per year paid to all day school teachers in the State (16,646), not including superintendents, assistant superintendents or evening school teachers of any kind, was \$948.29, an increase over the preceding year of \$52.60.

Corresponding averages for the past five years were as follows:

	1914	1915	1916	1917	1918
Average salary per year, day schools..	\$851.42	\$861.86	\$872.34	\$895.69	\$948.29

These averages, of course, include the cities. Included also are the one-room schools, in which the average salaries by sexes are as follows:

	1914	1915	1916	1917	1918
Men	\$520.25	\$522.72	\$553.32	\$552.02	\$614.01
Women	468.56	477.19	481.42	497.72	544.22

The average salaries paid to teachers in different kinds of schools were as follows:

	Men	Increase	Decrease	Women	Increase
Kindergartens .....	.....	.....	.....	\$813.49	\$33.92
Elementary grades, I to IV...	\$869.66	.....	\$44.43	791.09	35.05
Elementary grades, V to VIII	1,046.44	\$83.04	.....	888.52	37.88
High schools	1,724.07	118.44	.....	1,109.00	55.57
Special teachers, ungraded and backward classes	1,187.50	18.93	.....	942.09	69.62
Manual training	1,222.78	84.99	.....	954.82	1.22

NUMBER OF TEACHERS RECEIVING LESS THAN \$500 ANNUALLY FOR EACH OF THE PAST THREE YEARS, BY COUNTIES

COUNTY	1916	1917	1918	Total Number of Teachers in County 1918
Atlantic	24	26	15	542
Bergen	10	10	7	1,358
Burlington	101	90	52	400
Camden	79	80	35	914

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Cape May	42	35	12	181
Cumberland	147	130	82	361
Essex	15	11	11	3,314
Gloucester	64	60	36	280
Hudson	4	6	..	2,626
Hunterdon	58	38	26	195
Mercer	18	7	12	750
Middlesex	6	6	4	752
Monmouth	27	26	18	672
Morris	7	18	3	448
Ocean	79	74	55	172
Passaic	3	6	..	1,261
Salem	109	105	48	217
Somerset	7	8	2	283
Sussex	51	39	8	171
Union	21	34	7	985
Warren	113	96	54	243
	<hr/> 985	<hr/> 905	<hr/> 487	<hr/> 16,125

COMPARATIVE STATEMENT, BY COUNTIES, OF DAY TEACHERS
RECEIVING \$800 OR MORE

COUNTY	Number receiv- ing \$800 or more 1918	Total Number of Teachers in County 1918
Atlantic	320	542
Bergen	640	1,358
Burlington	50	400
Camden	424	914
Cape May	41	181
Cumberland	52	361
Essex	2,487	3,314
Gloucester	31	280
Hudson	2,062	2,626
Hunterdon	35	195
Mercer	410	750
Middlesex	334	752
Monmouth	308	672
Morris	193	448
Ocean	35	172
Passaic	681	1,261
Salem	23	217
Somerset	92	283
Sussex	34	171
Union	605	985
Warren	37	243
	<hr/> 8,894	<hr/> 16,125

TOTAL NUMBER OF TEACHERS IN THE STATE WITH THE
DIFFERENT GRADES OF SALARIES

	Men	Women	Total
Less than \$300.....	5	18	23
\$300 to \$399.....	5	18	23
400 to 499.....	13	427	440
500 to 599.....	26	1,594	1,620
600 to 699.....	48	2,800	2,848
700 to 799.....	45	2,232	2,277
800 to 899.....	63	2,080	2,143
900 to 999.....	65	1,399	1,464
1,000 to 1,099.....	103	1,202	1,305
1,100 to 1,199.....	76	895	971
1,200 to 1,299.....	104	662	766
1,300 to 1,399.....	82	595	677
1,400 to 1,499.....	104	151	255
1,500 to 1,599.....	107	93	200
1,600 to 1,699.....	91	99	190
1,700 to 1,799.....	69	40	109
1,800 to 1,899.....	90	63	153
1,900 to 1,999.....	43	23	66
2,000 to 2,499.....	256	68	324
2,500 to 2,999.....	140	6	146
3,000 and over	125	..	125

Salaries were generally increased for the year beginning July 1, 1918. If this had not been done large numbers of schools would have been untaught in September, 1918.

As it is, some schools cannot secure teachers, owing to the scarcity of teachers, which is nation-wide. Most of our local boards of education were wise enough to see that it would be absolutely necessary to increase salaries if our schools were to be taught.

A new duty confronts boards of education in these times. That duty is to make every effort to convince taxpayers that if the schools are to be taught we cannot get teachers at the salaries we have been paying. If standards of education are to be maintained increases of salaries must be generous. Without these increases our schools will not be taught at all, or they will be taught by poor and incompetent teachers and both the children and the State will be the losers.

The following considerations affect the supply of teachers at the present time.

1. Prevailing high wages or salaries in the industries have caused the withdrawal of a large number of persons from the work of teaching. Many teachers have resigned to enter other occupations

at salaries or wages amounting to from 50 to 200 per cent more than they were paid as teachers. I know of one commercial teacher in a high school who received \$720 a year. A graduate from her course entered the government service in Washington at \$1000 a year under the civil service rules. This is not an isolated case; it is typical. Many of the women who have gone into commercial pursuits will remain, as it has been found that they can do much of this work as well as or better than men.

New Jersey is at the very center of the industrial activities of the country and there is, as is well known, an enormous amount of war industries in the State and near it. The result is that women as well as men are called away from the schools by the high wages prevailing in these industries. In this crisis New Jersey is fortunate in the fact that our salaries are generally higher than in other states and that teachers regard New Jersey as a good State in which to teach. If it were not for these facts the situation would be far more serious than it is.

2. The cost of living has increased so much that many teachers feel they cannot afford to remain in the schools as they would prefer to do.

Since 1913 wholesale prices have increased as follows: food 85 per cent, fuel 53 per cent, clothing 106 per cent, drugs 130 per cent, and home furnishing goods 75 per cent.

While the average salary of the teacher in this State has increased in five years from \$816.38 to \$948.29, or \$131.91—about 16 per cent—the increase in the cost of the necessities of life has been far greater than this. Considering the purchasing power of a dollar the average teacher does not receive as much money for his year's work, taking the State as a whole, as he received in 1913—five years ago—and this in spite of the increasing demands made upon him.

It is greatly to the credit of numerous teachers that they have remained in the work of teaching in spite of financial temptations of various sorts to retire from it. Many teachers of New Jersey have stayed by their work as a patriotic duty. They are to be commended for their unselfish devotion to the work of the schools.

3. We need more men teachers in the schools—men of maturity and with families—particularly in the high schools. The average salary of men teachers in the high schools was \$1724.07 last year, an increase for the year of \$118.44. This increase was more than offset by the price of everything that these high school teachers, in common with others, paid for what they bought. This salary was

meager in comparison to what men were receiving in commercial pursuits.

4. The enrolment in the entering classes of the State Normal Schools of New Jersey in the fall of 1918 was 624; a year ago it was 797. There was a decrease this year of 173 students in the entering classes, or 22 per cent. New Jersey is suffering less than other states, but the situation here is serious. A falling off in the enrolment of young men and women who propose to become teachers means fewer trained teachers in the service of the State.

5. It is important that we consolidate schools wherever possible, to conserve our supply of teachers. New Jersey is making good progress in the consolidation of schools, as evidenced by the fact that there were 760 one-room schools in the State last year as against 803 for the preceding year. There were 281 two-room schools last year; the year before there were 296. Five years ago there were 1169 one and two-room schools; last year there were 1041. More schools could be consolidated than have been consolidated. Consolidation is for the educational benefit of the children.

6. During the year ending June 30, 1918, there were 486 teachers in the State who were paid less than \$500, as shown by the accompanying tables. The commonest unskilled laborer receives a larger compensation than this. It should be said, however, as indicated in the foregoing, that salaries have been so increased that there will be few teachers in the State who will receive this meager wage in 1918-19.

Some of the foregoing facts are not pleasant to dwell upon but it is necessary that the public should be aware of the situation as regards the teacher. We meet with the most serious obstacles in the progress of common and high school education in the State when the supply of trained and competent teachers falls off. It is a situation that demands positive and prompt action. It has been partially met by the increase in salaries already made, but in the fall of 1918 there are some schools in the State untaught and others that are taught by teachers not so competent as could be desired.

Our standards of education should not be lowered; they should be raised. After the war is over conditions will demand a higher degree of general intelligence and skill and virtue than we have yet attained. In the main this can only be obtained through the organized agency for public education—the schools. Means must be found of making teaching more attractive to a high class of men and women, who would look upon it as a professional and worth-

while employment and not as a make-shift. Only in this way can the welfare of the State and nation be conserved.

New Jersey has good schools but they must be and can be better schools. Whatever our organization of schools and course of study, these are effective only as we have good teachers to put them in practice.

HELPING TEACHERS

The second year's work of the helping teachers in the rural schools has further shown the value of these teachers to such schools. Helping teachers were employed as follows:

Atlantic County	1	Monmouth County	1
Bergen County	2	Morris County	1
Burlington County	3	Ocean County	1
Camden County	1	Salem County	1
Cape May County	1	Somerset County	1
Cumberland County	1	Sussex County	1
Essex County	1	Union County	1
Gloucester County	1	Warren County	2
Hunterdon County	2		

These teachers are all women, and helping teachers should be women.

They do not work in the schools with teachers who have supervising principals. This explains why they are not found in some counties, for instance, Mercer and Middlesex.

The purpose of the helping teacher is to give rural school teachers help in their work with children. In city systems there is a superintendent of schools; often assistant superintendents; supervisors of special subjects, such as drawing, physical training, music, and the like; and principals of schools, who assist teachers in their work.

In city systems there is usually found one supervisory officer for every 20 or 25 teachers. A large part of the business of these officials is to aid teachers in their instruction.

In the cities are usually found the trained teachers, the experienced teachers, the teachers of maturity, the well-salaried teachers, the teachers who stay in their positions year after year. Moreover, they usually have plenty of supplies and equipment, and they teach in graded schools. Still, it is felt by school authorities that these

teachers need the assistance of supervisory officers, one for every 20 or 25 teachers.

This is the settled policy for the conduct of school affairs in the cities of this country. It is also the settled policy in the larger towns and boroughs. The policy is settled because it is well known that no teacher, whatever his experience, is so good a teacher that he cannot be made a better one. Constructive, helpful supervision goes a long way in making him a better one.

On the other hand, in rural districts are found, on the whole, the untrained teachers, the inexperienced teachers, the young teachers, the low-salaried teachers, the teachers who stay but a year or a short time in their positions. The schools they teach are often ungraded schools; their classes are many; supplies, books and equipment are often lacking. Usually they do not have the help of supervisory officers as do teachers in cities. Of course there are exceptions, but as a rule the conditions as named prevail. In other words, the teachers who need help the most are the very ones who have the least of it.

If city teachers—trained, experienced, well-salaried—need assistance, why not afford rural teachers—inexperienced, immature, untrained—similar assistance? The helping teacher is supposed to give these rural teachers such assistance as is given so generally to city teachers.

Poor teaching spells an enormous waste in education everywhere but nowhere is it found to a greater extent than in country schools. The great problem there especially is to secure more vital teaching of children.

Country children are naturally as bright as city children but the plain truth is that they do not get a square deal in our educational system. Again there are exceptions, but such is the rule. The helping teachers came into being in order to give these children the educational rights to which they are entitled.

These inexperienced, meager-salaried, new-to-their-schools teachers in rural schools welcome eagerly such help. This has been demonstrated in the past two years. These teachers have testified to the kindly, sympathetic, positive, guiding hand of the helping teachers. Many of the country schools have been given new inspiration by these teachers. Numerous country teachers have been led to stay in their positions and not to go to city positions, by the influence of these helping teachers.

It is generally recognized in educational circles in the country that

New Jersey, through its helping teacher movement, is leading the way in the betterment of rural schools. No single movement, except that of consolidation where consolidation is practicable, is doing more to settle the problem of the country school. This is the largest problem in education today. There is much talk about it, but little result.

New Jersey through its helping teachers is doing something.

It may be asked why the county superintendent should not perform the duties of the helping teacher. The answer is that his administrative duties are so numerous that it is impossible to do this. His position is analogous in its jurisdiction to that of the city superintendent, and every city superintendent, as has been pointed out in the foregoing, has the help of assistants. Moreover, the schools under the jurisdiction of a city superintendent are far more compact and easier to reach than the schools under the jurisdiction of a county superintendent.

Among the things for the betterment of the country schools that have been accomplished by the helping teachers are the following:

- Introduction of methods of teaching reading, arithmetic, spelling and other fundamental subjects
- Assisting teachers in the making of school programs
- Promoting cleanliness of schoolrooms and premises
- Holding teachers' meetings
- Assisting to organize parent-teacher associations
- Organization of health clubs
- Making schoolrooms more attractive
- Vitalizing classroom instruction
- Securing better medical supervision
- Helping with physical training
- Influencing boards of education to secure better quality and quantity of school supplies
- Helping to make country school life more attractive
- Formation of better language clubs
- Bringing about closer coöperation between parents and teachers

The maximum salary of the helping teacher is \$1500, out of which she pays all her expenses for travel or getting about. These expenses vary from \$450 to \$500 a year, not counting the depreciation of the automobile, for the helping teacher must, as a rule, provide herself with an automobile and maintain it.

Salaries must be increased. This is imperative and vital if the country schools are to be further improved by the helping teachers. We need at least 30 of these teachers instead of the 23 we now have.

Former schoolboys now in khaki

Flags of the Allies

A touch of the military

The second line of defense

Girls too like to run

Plenty of action here

Character making as well as body building

Nothing prettier

STORY OF A GREAT DAY IN MONMOUTH COUNTY SCHOOLS

With salaries as they are it has been impossible to fill these positions with acceptable teachers.

It is difficult enough, as we have found in our experience, to secure teachers for this service—women who really can help. The members of the Department spend much time in selecting such teachers. County superintendents, city superintendents, and normal schools are asked to assist. Even then the process of selection requires more time than can be appreciated by an outsider.

The helping teacher must be a woman of education, of more than ordinarily successful experience in teaching, of strong, robust health, of good personal presence, of a cheerful, buoyant disposition, and of ability to get on with those with whom she is associated. Such persons are not easy to find.

We are confronted with the fact that teachers we would like to employ often decline the positions because of the expenses attached to the office. With prices as they are, and taking into account the fact that several cities in the state are paying more than \$1000 to grade teachers, it will be seen at once that the salary as now provided for is too meager. Some of our best helping teachers will be forced to withdraw from this service and secure other and better paying positions unless the financial remuneration is made more attractive.

It is interesting to note how many teachers in each of the respective counties are in the districts supervised by helping teachers.

Atlantic County	58	Monmouth County	40
Bergen County	80	Morris County	25
Burlington County	105	Ocean County	42
Camden County	44	Salem County	40
Cape May County	47	Somerset County	65
Cumberland County	109	Sussex County	60
Essex County	33	Union County	34
Gloucester County	98	Warren County	65
Hunterdon County	89		

Inasmuch as the position of the helping teacher is a comparatively new one the following extracts from the reports of these teachers to the Commissioner will be of interest. These reports and extracts reveal the many-sided activities of these teachers.

There are 60 teachers in my districts, all of whom I have visited once, and the greatest number of visits to any one teacher has been four.

In nearly all my visits I plan to spend the noon hour with the teacher. It

is then that we really become acquainted and I find many of the teachers almost eager to talk of their work. Often we talk of the work that I have seen that morning in the school, and if there is some point in it that I wish to bring particularly to the teacher's attention I demonstrate it by actual teaching either that day or on some subsequent visit.

I find that country teachers and pupils are very glad to learn of what other nearby schools are doing, so whenever I find something of real worth in a school I borrow it to exhibit to another school. A bunch of neat arithmetic papers, good English papers, perfect spelling papers, or good penmanship papers—from a fifth grade perhaps—will prove an incentive for a careless fifth grade to try to do more praiseworthy work.—*Cora Schaible, Atlantic County.*

Held teachers' meetings and discussed all subjects at different times.

1st—The Recitation as applied to all subjects

- a Assignment
- b How to study
- c Art of questioning
- d Attention
- e Interest
- f Use of blackboard
- g Drill

Subjects—Reading

English
Arithmetic
Physical training
History
Geography
Spelling
Penmanship
Seat work—kinds profitable

Best method applied
Correlation
Accuracy
Discriminate between essentials and non-essentials

—*Agnes Brown, Bergen County.*

For the purpose of more intensive work, more "follow up" visits, and a closer checking of results in the poorer schools, I divided the 25 schools under my supervision into three classes: (1) schools doing good work, (2) schools doing fairly well, (3) schools needing constant help.

At the beginning of school, tentative programs were arranged, discussed and finally worked out in detail with each teacher. In connection with this work we have consolidated classes.

All schools are supplied with copies of all state monographs. These are stressed all through the year, and each gone over in detail with beginning teachers.

I held 30 group meetings during the year, discussing methods and management, and having model lessons taught.—*Melvia M. Wormuth, Bergen County.*

While attending summer school I began to make plans for the work of the coming year. My aims were, first, to stimulate the interest of the teachers

to do better work; second, to improve methods; third, to bring the school and the community closer together. . . .

The field meet, the great effort for good teaching of physical training, together with the arousing of interest on the part of the home and school associations for better sanitary conditions in the school have been a part of my "better health" campaign.

Thirty-six of my schools are the proud possessors of the Junior Red Cross certificate. They have done fine work. We aimed to encourage the pupils to work for refugee children by either meeting with the Red Cross and working under their direction, or using the handwork period. In one township the Home and School Association gave a day to sewing for the Junior Red Cross; the older girls met with these women and helped with the sewing.

It has been difficult to raise the money, to get information concerning the garments, and to make them in the short period since Christmas. We are hoping to find in each community a person willing to do her "bit" by teaching sewing next year to the Junior Red Cross members.

Each school since April 1 has had on sale, at least once a week, Thrift Stamps. The pupils in one two-room school report that they have bought \$250 worth; a larger school reports \$275 worth.—*Caroline B. LeConey, Burlington County.*

The work of the Camden County helping teacher for the school year 1917-18 began August 29, 1917, with an all-day meeting of our teachers at the Camden court house. The morning period of the meeting was devoted to clearing up classroom procedure, such as arrangement of programs, the urging of the use of the daily plan and progress book, and systems of good "house-keeping." Specimen programs for one-room, two-room and three-room schools were on display. Teachers met in groups according to the type of building they taught in and individual programs were adjusted as nearly as possible to actual teaching conditions prevailing in each school.

The afternoon period was devoted to the explanation of the physical training law and its requirements, accompanied by demonstrations of various phases of the work by a class of volunteers from the teachers present. Many of our teachers had taken the work at the summer schools. For the benefit of those who had not a class was organized, which met after school each Friday until January, to be trained by Miss Helen Murphy.

Our corps of teachers included six beginning teachers, eight who were beginning their second year's experience, and in addition, there were fourteen teachers new to our group. The first visits were made to the beginning teachers, who had been requested to have their problems ready for discussion as soon as they developed.

On September 18 a series of short visits was paid to schools to help plan for physical training periods adjusted to the special needs of each building. A "drive" was also made in schools where the children are of Italian parentage to urge the attendance of these people at a meeting at Elm School. This meeting was held September 21, and was called "Italian Conservation Day." A vacant schoolroom was fitted up as a kitchen with an oil-stove and tables, and a demonstration of canning and preserving was given by Miss Marian Anderson, domestic science teacher, assisted by Mrs. Maria Luzzi, Italian

interpreter. While Miss Anderson worked Mrs. Luzzi explained the various steps of the process to the Italian women and girls assembled. This meeting was held in direct response to the request of the Italian women in this district that they be shown how "to fix peaches just the same as American women." The Elm teachers did fine work in arranging the troublesome details of the impromptu kitchen. The seating of the visitors was typical of the locality—boards placed on crates. The recipes used were printed in Italian, translation having been made in plain language by the Camden County court interpreter. The funds raised to carry on the enterprise were furnished by the proceeds of a spelling bee held by people interested in school affairs in another district of our county.

Group meetings were called for teachers in the various townships, in a series of three, for the study of the geography monograph.

Another series was held at the close of the year for the purpose of discussing supplies and requisitions for the next year. These were held in each township and borough. Teachers brought lists of books and supplies on hand and lists of pupils as arranged in grades for next year, and then in conference decided just what changes were necessary and how many copies of texts were needed. The helping teacher then made a summary sheet, which was sent to the district clerk of each board, accompanied by a letter from our county superintendent, urging the adoption of everything requested, and explaining that care and economy and judgment were used in the selections made. In one case the helping teacher presented the supply list and in another the supply list was made at the request of board and supplies purchased. The boards were pleased to have the work of making out of supply lists simplified for them. In this way the improvement of the equipment of our schools next year is practically assured and one important phase of school work, namely, busy work for our primary grades, is provided for. . . .

Fourteen phonographs were added to the equipment of our schools by the activities of the teachers, assisted by the parent-teacher associations.—*Helen A. Ameisen, Camden County.*

Interest in physical training is growing in the small community. During the latter part of the school year scarcely a school entertainment was given that did not include some exhibition of physical training, the story play, rhythmic play, or folk dance. There seems to be no serious objection to the folk dances in Cape May County. They are enjoyed both by participants and by spectators. . . .

In most of our schools we have highly organized health clubs and these have been encouraged and praised for their good work. Some are almost entirely under the management of the children themselves, and are very ably managed, too. Such health organizations in school have been the means of linking school with community interests, which is so desirable—which, in fact, makes a real school in a real community. . . .

For me it has been a pleasure to work with the girls and boys in Junior Red Cross. Some schools, where teachers are at home, are keeping up the work through the summer. This week I am receiving the finished work, refugee garments in the main, of the various schools throughout the county, urban and rural, and look forward to the packing and shipping of these as

a splendid finish to the work of the school year.—*Roxana S. Gandy, Cape May County.*

My aims have been:

1. To improve the rural school program and organization of classes.
2. To improve the teaching.
3. To improve the surroundings.
4. To interest the community in the school.
5. To encourage the war activities in the school.

I have worked with 35 teachers in six townships of the county. Of these, 22 were new to the county this year, while 16 were first year teachers. . . .

During one of my visits to a one-room school I found the teacher doing very poor work in physical training. Although this teacher had attended group meetings and observed class demonstrations, and could have taken helpful suggestions from the monograph, yet I found the lesson being conducted with tightly closed windows and very poor teaching being done. I observed the lesson for about five minutes, then asked to take the class. I first opened all the windows and explained to the class that we should have gone out-doors had it not been raining. I selected about three of the most vigorous exercises from the monograph, for I felt this class had not had any real exercise. The pupils did poorly at first, but soon caught the spirit and responded readily. For the last part of the lesson I taught a game which we played in the room, after which several pupils remarked that they wished they could have such fun every day.

In a conference with the teacher after school I explained that the work must be made as interesting as possible, and that she must put a great deal of energy into the teaching; have the lesson out-doors every clear day, and when it was given in the room have the windows open wide. I planned to give special attention to physical training in this school and have been pleased with the results. While visiting one very pleasant day this spring I was glad to see the class marched out into the sunshine and a very creditable lesson taught, including the formal lesson as well as games. This teacher seemed to be helped more by lessons taught in her own room than by all previous instructions. . . .

Many of the schoolrooms, grounds and outbuildings were kept in excellent condition by the pupils through health clubs, monitor systems and playground captains. Arbor Day was used in several schools as clean-up day, as well as for planting flower beds and trees. . . .

A one-room school located in the woods was so annoyed with mosquitoes that it was almost impossible to have school. The parent-teacher association screened the windows and door, making it very comfortable for the children.—*Jean F. Mackay, Cumberland County.*

The time spent with a teacher varied according to conditions, but in general I tried to acquaint her with the fundamentals of instruction and of conducting her school by showing her the necessity of first preparing and planning her work, of making seat work related to and correlated with other school work. Classes were reorganized and programs made to fit the different types

of school. It was often necessary to take full charge of a room for two or three days to insure a systematic routine.

Poor housekeeping conditions have been overcome to a certain extent through the organization of health clubs, but in a few cases I had to do the actual cleaning to prove to a teacher that it was a greater sacrifice of dignity on my part to teach in an untidy room than to clean it, and that as a careful hostess takes pride in her home so she should take pride in her schoolroom.

Few teachers, even normal graduates, seemed to have any idea of what constituted a good program. In a one-room school with an enrollment of 11 pupils I found a program providing for 42 so-called recitations per day. This was typical of many others. Prior to the opening of schools the county superintendent asked that I make suggestive programs for the different types of school under my supervision. These were presented and discussed, together with the monograph on program making, at a meeting called a week before our schools opened. . . .

Much time has been wasted by the new teacher at the beginning of each school year in making a program to fit her type of school and in learning the proper classification of the pupils and what textbooks to use in the different classes. To eliminate this waste of time each teacher has been asked to leave in her schoolroom a copy of her program, together with a record of each child's work, including the attendance, and a list of the textbooks in her school, telling in what classes they were used. . . .

Physical training was taken up with a great deal of interest and enthusiasm. The monograph has been explained and demonstration classes have been conducted at teachers' meetings. Through the efforts of the county superintendent a series of eight lessons on physical training were given in three sections of the county easily reached by all the teachers. These were conducted by the physical training directors of the Woodbury schools. The monograph was interpreted and the teachers were trained how to do the exercises and games, and this has resulted in very good work.—*Katherine L. Smith, Gloucester County.*

During the past year the following lines of work were emphasized:

1. Improvement of teachers in service.
2. Improvement of the health of school children.
3. Organization of war work in schools.
4. Organization of Rural School Council.
5. Coöperation between parents and schools.

Just half of the 52 teachers in this section were new to their work. Fifteen were starting to teach in new communities and 11 were inexperienced high school girls. But seven of the 52 teachers have had normal school training. . . .

In November, and again in May, the helping teacher tested the pupils of grades 4 to 8 in English composition. The subject of the November composition was, "How I spent Saturday," and that of May, "What I Would Do With a Thousand Dollars." The directions given for the Hillegas language test were followed and the compositions were scored by the Nassau County Supplement to the Hillegas Scale for Measuring the quality of English Composition.

Much time has been spent during the past year in getting teachers to use the problem method of teaching history, geography and civics. Some teachers have not studied the monograph carefully enough to realize the value of the method; others are too indifferent to prepare the problems and simply follow the line of least resistance—the textbook lessons and questions. The progressive teachers who are using the method are enthusiastic about the results. They are more interested in the subject themselves, and their pupils are really thinking and showing some initiative in their work. . . .

In September physical training and supervised play were introduced in every one and two-room school. A few of the teachers had taken a summer course in physical training, but the vast majority knew nothing about it. Physical training drills and games were taught in every school by the helping teacher. The triple test for posture was given and the children were taught how to sit and stand correctly. Corrective exercises were given on practically each visit during the school year to remedy defects in posture. The physical training work given in the county institute was a powerful incentive for better work in the schools.

All the teachers now have regular periods for the three-minute drills and supervised play. A summary of a questionnaire sent out at the end of the school year shows that 97 per cent of the pupils are in the habit of practicing at least three physical training exercises a day and that 84 per cent of them have improved in their sitting and standing postures.

Very few of the schools in this section have modern seating conditions. In many instances the seats are double, non-adjustable, too large, too far apart, and badly arranged according to size. The helping teacher assisted in rearranging seats in seven schools, which made conditions better but far from perfect. One school purchased movable chair desks.

The helping teacher realizes that the seating conditions in the country schools of this county are notoriously responsible for the large percentage of round shouldered, narrow chested children. Correct posture, which is of such fundamental importance for health and efficiency, will never be attained by rural children as long as much of the good accomplished by physical training is neutralized by the bad effect resulting from the unhygienic school furniture. . . .

In December a number of children were asked to tell how the Health Club had helped them. Below are two characteristic letters which show the reaction of the club work on the pupils' health habits.

"I am going to write and tell you what the Health Club has done for me. Before the Health Club was organized in this school I hardly ever cleaned my teeth but now I clean them every day. I never slept with the windows open but now I tell mother to put more covers on and I open the windows wide. The physical exercises have helped me in sitting, standing and walking more nearly correctly. The physical exercises you gave us I liked very much. It made my muscles a little sore but that won't hurt me."

"I enjoyed your visit to our school the 10th of this month very much. I liked especially the physical exercises. I think the Health Club has done wonders toward making me stand up straighter. Before we organized the club my mother kept at me all the time to stand up straight. Since then she never

has to say a word. I take more pride in keeping myself clean and neat looking. I very seldom brushed my shoes mornings, but now I brush them every morning. My finger nails are much cleaner and neater than they used to be. I try to answer all the questions in the daily and weekly inspections. I like the exercises for straightening the shoulders and exercising the limbs. We are going to make a drive this month to see if we can raise our record in the Health Club.

"Come to visit our school again as soon as possible as we like to have you."

All but five schools in this section have organized Junior Red Cross societies and many of them did excellent work. Some of the ways and means of assisting the Junior Red Cross were as follows: money raised for work, entertainments given, junk collected and sold, Parent-Teacher Association interested, parents' help enlisted, Red Cross literature distributed, Red Cross drive, proceeds from school festival, jellies collected, Red Cross plays given. Articles made by Junior members: infants' outfits, chemises, sweaters, wristlets, mufflers, knitted squares for bed covers, knitted washcloths, comfort bags, property bags, comfort pillows, scrap books, bed socks and triangle bandages. . . .

During the past year the helping teacher has made a persistent campaign for better coöperation between the home and the school. Talks on rural school work have been given in schools, in women's clubs, and in churches. Very effective work has been accomplished through the organization of parent-teacher associations. There are now 12 working parent-teacher associations in the northern part of the county. Among the results due to the combined work of the parents and the schools are the following: assisting with school plays, securing new school bell, securing new flag, raising money for school library, providing assistants for Junior Red Cross work, buying playground apparatus, paying \$2 for state travelling library, influencing board of education to purchase new textbooks, rearranging seats in a schoolroom, raising money for piano, buying phonograph records, securing picture for a school, raising a teacher's salary, making school a social center, creating sentiment in favor of consolidation, helping with school festival, providing refreshments for festival, providing lunch for festival.

A conference of the parent-teacher associations of the county was held in April. Mrs. Bechtel and Mrs. Sandford, state leaders of the Parent-Teacher Association, the county superintendent, and helping teachers were speakers during the day.

Three food demonstrations were given in the school during the year. The helping teacher is planning to have eight or ten canning demonstrations given in schoolhouses during the summer.

Teachers have been encouraged to give newspaper publicity to the work they are doing in the schools. Rural school notes were sent from the office to the county papers at least once a month. The Rural School Council meetings and school festivals were well reported in the local papers. The publicity thus given to the rural school affairs did much to interest parents in the work.

During May and June eight school festivals were held in the northern part of the county. The main purpose of these get-together days was to interest people in the rural communities in improving county school conditions. The festivals were a decided success and the results achieved were very evident

in the pupils, the schools and the communities. The pupils were given an opportunity to form acquaintances among the boys and girls of their townships. The pupils who received honors in scholarship, exhibit work or athletics were publicly awarded, and this feature itself did much to stimulate the self-respect and ambition of all the pupils in the township. The pupils were given an opportunity to develop leadership.

The festival as an incentive caused the work in the schools to be much better organized and much better done. Each school had its first opportunity to measure its accomplishments with those of all the other schools of the township and to take note of its strong and weak points. School spirit was developed. The civic and social reaction on the communities as a whole was most encouraging. The splendid coöperation of parents, school boards, and members of the different neighborhoods did much to make the festivals a success. Parent-teacher associations were strengthened and new ones planned for next year. More interest was shown in the care of the health of the school children and the need of improving the physical surroundings of the schools. The need of better school equipment was spoken of and in some cases promised for next year. The patriotic nature of the day's program did much to emphasize the need of a more intensive patriotism for the nation's work during the great war.

The school festivals this year have done so much to increase community spirit, loyalty and coöperation in improving rural school conditions that they should form a very important part of each school year's program.—*Jennie M. Haver, Hunterdon County.*

When I returned to my work in Hunterdon County in August I found that 21 of the 39 schools with which I worked last year were to have new teachers. Eleven of these new teachers were lacking in teaching experience. Twelve of them were teachers of a few years' experience, who came from other counties or from other schools in Hunterdon County. During the school year seven teachers resigned and inexperienced girls took their places. Consequently, I have worked with 18 inexperienced teachers this year, only three of whom were normal school graduates. Such numerous changes made necessary a repetition of last year's program during the first weeks of school.

During September and October I visited each beginning teacher twice and paid a number of visits to strong or promising teachers, who responded to my request that they demonstrate a morning's program of work for the benefit of visiting groups of teachers. . . .

During the year I followed the plan of visiting most often those teachers who were most responsive to help. On my visits I taught, observed the teacher's work and gave positive criticism. I followed up my plan of last year and emphasized first the teaching of reading and oral and written composition. . . .

Beginning in September we sent out monthly letters to the teachers. In these letters we kept them in touch with what health and English clubs in various schools were doing, announced Council meetings, reported the work of our Council, made suggestions regarding schoolroom practice, asked them to organize Junior Red Cross chapters and to hold Thrift Speech contests,

and expressed our pleasure in the splendid way in which they were coöperating with us.

Whenever making plans or attempting to devise ways of improving our schools I wished that I might consult teachers with whom I worked. Mr. Hoffman, Miss Haver and I decided that we could arrange this by organizing what came to be known as a Rural School Council. In October we wrote to every rural teacher, explained our plan and asked her to vote for a teacher whom she wished to represent her township in the Council. The teachers responded and on the second Saturday in December we met for the first time, organized and made plans for the year. Notwithstanding a snowstorm, every township in the county save one was represented. Members of the Council voted to hold monthly meetings and they adopted the following program, a copy of which was mailed to every rural teacher:

I. Improve school attendance

1. By making school work as worth while and attractive as possible
2. By enlisting the coöperation of the parents
3. By emphasizing health, better language and Audubon club work
4. By securing legislation to improve the compulsory attendance law

II. Enlist the interest of parents

1. By inviting them to see regular school work
2. By bringing the needs of the school to their attention
3. By organizing parent-teacher associations

III. Enlist township coöperation

1. By means of a spring festival or community day at a central school, features of which shall be
 - a. An exhibit from each school
 - b. Demonstration of regular school work
 - c. An athletic contest
 - d. A pageant
 - e. Talks on rural school improvement

IV. Secure books for the professional growth of teachers through the State Library

V. Work for better equipment of schools

1. More blackboard space, maps and globes
2. Supplementary textbooks
3. Twenty dollar supply of new library books each year for every school
4. Proper adjustment of present seats or provision for individual chair desks
5. Clean outbuildings.

VI. Obtain from helping teachers monthly suggestions for teaching hand-work and English composition

The Council met regularly and in addition to carrying out much of its proposed program appointed committees to work out changes in the Better Language Club and to select textbooks. It also mailed to every township board of education a clear and forceful statement of the reasons why teachers' salaries should be increased. . . .

I consider, however, that the Council did two big things. First, it made many teachers feel that our problem, the improvement of rural schools, was their problem; it secured for us the coöperation of the leaders in our groups.

Second, the Council through planning and holding township festivals secured for the schools to a greater degree than they have before known the interest and coöperation of parents and taxpayers; motivated school work, and gave to every school child educational opportunities which come through contact with larger groups than those surrounding a single rural school.—*Maud C. Newbury, Hunterdon County.*

Supervision of play periods and all recesses was urged, and many teachers have made a practice of leading or joining in the games at noon and at recess, as well as during the physical training play period. . . .

A simple form of health inspection was carried out by teachers or pupil leaders, and pupils took charge of certain regular duties in caring for rooms, books, facilities for drinking and washing, temperature regulation, and toilets. A good many pupils show marked improvement in personal appearance, while schoolrooms are much neater and more attractive. . . .

A number of schools have raised money for phonographs and records to use in the physical training work, and one has a new piano, bought with the proceeds from several entertainments and socials given by the school with the help of the community club. But three or four schools are now without a musical instrument of some kind, and these have singing and marching every day and will have their phonographs next year.

A few teachers objected to fresh air in the very cold weather, but these were exceptions, and many teachers have spoken of the benefit they and their pupils have gained from the regular physical training and outdoor exercise. The work has improved health and scholarship, and has made discipline better. . . .

At group meetings demonstration lessons in reading were given, followed by free discussion and questions. These were especially helpful. The helping teacher has taught reading at almost all visits, discussing the work with the teacher at the close of the period or of the day. We have made flash cards and other drill devices. Additional texts and manuals were lent to teachers and the use of the monograph was frequently illustrated and recommended. . . .

In teaching grammar the monograph was used to point out the elimination of non-essentials and as a course of study. Young teachers thought they must "go through the book," and I found a little class of three trying to "learn infinitives" from an ancient textbook, while they were not able to recognize verbs, and were not always sure whether their own sentences were completed or not. At my second visit to two such schools I found the "A" classes in English writing excellent letters instead of struggling with technical grammar.—*Charlotte E. Wilson, Monmouth County.*

Readers were asked for in Mt. Olive Township but were refused on the ground that it was too large an order, when in reality the closest figure possible was made, allowing one book in reserve and one for use of the teacher, which now is not the case. For instance, in some classes in arithmetic, two books are used by four pupils.

Only one set of readers is provided for use by different grades, which is entirely inadequate, but our efforts so far to persuade the board of education

of the benefits to be derived from more and better texts have been in vain. To one school I took my own books, to the extent of 35 for pupils and eight for the teacher. . . .

It is my conviction that nothing has been incorporated into our school system in some time which has done so much to develop fair play and leadership, to establish wholesome activity and helpfulness, and to generally work to the all-round good of the pupils, as physical training. . . .

Almost without exception, geography and history reading lessons, so prevalent in the schools two years ago, have been eliminated. The new monograph on these subjects has been invaluable, and the project method involving problems has been used in many classrooms with new interest and enthusiasm on the part of teachers and pupils, and with profit to the pupils.

It has been difficult to get some teachers away from the common practice of assigning subject matter from books page by page, but in most cases the better practice of assignment has been substituted. Where the strongest teachers have followed the monographs and profited by group meetings and conferences the pupils have motivated their work, have gained in discrimination of ideas, organized forceful ideas around vital points, and been given opportunity for initiative. They are beginning to learn how to study. . . .

We have tried to help the children become partners in the drive to win this war. Problems in food conservation have helped them to realize how saving the little mounts to the larger sum. Almost no pieces of food are seen around the school yards, where there used to be considerable. Health and hygiene clubs have helped very much in this work.—*Clare Bartlett, Morris County.*

A county health club was organized. Many of the teachers had organized health clubs in their respective schools, but no attempt was made to standardize them or place them on a competitive basis until February, when this was done. Banners were offered for the schools having the highest percentage for a period of 12 weeks. This put new enthusiasm into the work, and judging from the appearance of the pupils, schoolrooms, playgrounds and behavior of pupils, the plan was a success. One little girl, when asked if she could suggest an improvement for the club another year, said, "Yes, I think we should be asked if we have left our room at home neat." The following are noticeable benefits:

1. Neater appearances
2. Critical attitude toward posture
3. Improved attendance
4. Sense of value of avoiding illness
5. Performance of patriotic duties that might have been neglected had reports not been asked for daily.

Nearly all the pupils had a health examination by the medical inspector. In a few cases the follow-up work has been carefully attended to, but in a majority of cases nothing has been done. A school nurse is necessary if this work is to be efficiently carried on.

Judging from the success of the May Day Festival, held May 11, which was an outgrowth of physical training, the physical training program has been successfully launched. Judging from the interest shown by the teachers, parents and pupils, physical training is welcomed and appreciated. . . .

The Nassau County Composition scale, Ayres Penmanship, Kansas Silent Reading and Woody's Arithmetic tests were used in February by the helping teacher in grades V to VIII inclusive. The compositions were measured by the teachers and pupils themselves in the higher grades. A copy of the scale was furnished each teacher so that a standard of attainment was kept before him the remainder of the year.—*Sara B. Hernberg, Ocean County.*

Probably the most interesting work this year has been physical training. Both teachers and pupils have entered into this wholeheartedly and I feel that results have been quite satisfactory. Drawing, language and physical training were combined in many ways. . . .

At a meeting of the Associated Boards of Education in the winter a display of the work of the county children from the rural districts was on exhibition. The helping teacher was given a place on the program and explained the work. Several members were much interested; so much so that as a result three townships this spring have allowed the helping teacher to make out their supply lists.—*Emma R. Burt, Salem County.*

The results of our early conference with the teachers of one and two-room schools in Somerset County on the Tuesday and Wednesday following Labor Day, 1917, were very noticeable in the way the majority of our teachers attacked the work at the opening of their schools. Teachers were directed by their boards of education to attend the conference with the understanding that the days so spent would count the same as days taught. The discussions were conducted alternately by County Superintendent Krebs and the helping teacher. Some of the subjects considered were: how to keep the register, program making, school housekeeping, beginning reading, seat work, use of monographs, spelling, physical training. In connection with physical training the helping teacher taught indoor exercises and games in the morning, and in the afternoon all marched to the playground for games and folk dances. . . .

The keynote of this year seems to have been drive—drive—drive, with patriotism and war as the motive. Because of a seeming indifference on the part of some communities, perhaps from insufficient or misleading information regarding the war, we planned to hold a series of "Patriotic Meetings" in various parts of the county. More than 10 of these meetings were arranged for. We advertised widely with handbills, which pupils left in every house, store, church and hotel in the vicinity. Prominent speakers from Plainfield and Somerville accompanied us and always heeded our injunction to "be brief but stirring." The pupils of the school held patriotic exercises for the first 15 or 20 minutes. . . .

A few accomplishments of our infant parent-teacher associations are worth noting. On the grounds in front of a two-room school the parent-teacher association, with the aid of the members of the board of education and others whom they interested, planted 24 trees, a privet hedge, clumps of low evergreens, and screens for the outbuildings. The value of the trees and shrubbery was \$70, but an interested florist laid out the plan for planting and made the bill \$40. The ladies provided refreshments and encouraged the men and boys who did the planting, some of whom were not on speaking terms but were obliged to work together. The neighborhood people, pleased with

the progress, donated the \$40 by night. The president of another parent-teacher association held a dance in her new barn and realized \$35 for Red Cross purposes.

The following invitation, signed by the helping teacher, was sent to each president:

"Through the courtesy of the North Plainfield Parent-Teacher Association, an invitation is extended to the officers and all other members of your Parent-Teacher Association, to spend Flag Day, June 14, at the North Plainfield High School.

"The school will be in regular session from 8.30 to 10.30 A. M. At 10.30 there will be a flag raising with appropriate exercises, the outside schools marching in for this occasion.

"After luncheon there will be a short Parent-Teacher meeting, which will be addressed by Mrs. Drury Cooper, one of the officers of the Mother's Congress. There will be some interesting literature for you. After the meeting we shall try to visit a Red Cross chapter and see the members at work.

"The school is on Somerset Street and can be reached by trolley from the Plainfield Station in five minutes.

"Come early, bring a large delegation and prepare for a pleasant and profitable day.

"Bring your lunch. Tea and coffee will be served.

"Please see that every member of your association is notified of this meeting, at once.

"Which association in Somerset County will have the largest number present. Let's see!"

Although only 25 per cent of our societies responded, for North Plainfield is not easy of access to most parts of the county and the time of year was a busy one for farming people, the meeting at once bore fruit in enthusiasm and in social work. We presented the society having the largest representation with a framed picture of Lincoln to be hung in the school.

There is a growing feeling with rural women that suffrage is coming to them and that they should have a place on boards of education.—*Laura M. Sydenham, Somerset County.*

My aims have been:

A. Better teaching

1. Organization of material
2. Correlation of material
3. Daily preparation
4. Better assignments
5. Teachers' meetings

B. War activities

C. Improvement of health by means of hot lunches. . . .

At the beginning of this year we sent suggestive programs to each teacher. These contained a period for primary language work. We asked that such a time be a part of each program and that it be religiously observed. This has borne fruit far beyond our expectations. . . .

Last fall at the branch teachers' meetings I read a paper on "The Possibil-

ties of the Hot Lunch." Many teachers saw at once how it could be effectively carried out in their schools. Later Miss Jones and Miss Jackson of New Brunswick came up and gave demonstrations in the project. Later, when reports were handed me, I found that hot food had been served in 11 different schools, that 22 different kinds of food had been prepared, and that 4,097 school children had been served. All this work was done on the ordinary "station" type of stove. One teacher, who had a very nice jacketed heater which afforded her no place to heat the vessel used for cooking, was so determined to do something for her pupils in this line that she set the pan inside the stove to allow the contents to boil. She had to confine herself to one kind of food.

Teachers reported to me that there had been fewer colds, and much less crowding about the stoves during recess periods. I am egotistical enough to believe that it was due to the hot food they had received.—*Florence L. Farber, Sussex County.*

As I view it, the helping teacher's work is divided into two main aims: (1) helping the teacher to discover her needs; (2) directing her toward ways and means for meeting those needs.

I have set about accomplishing these aims as follows.

Upon my first visit to each school the purpose uppermost in my mind was to show the teacher that I had confidence in her ability. It has always been my firm conviction that in nine cases out of ten we can get out of teachers and children whatever we are confident they can do. I attempted to pick out one thing that each teacher was doing well and sometime during the day to let her know my opinion. I kept note of this particular feat of hers and tried to use it in group meetings later on. . . .

The public in a number of communities had to be initiated into the secret of the benefits derived from physical education. This was accomplished by having on every possible occasion an exhibit of this phase of the school work. We always saw to it that the children of those opposed to the work took part in the exercises; this usually worked. . . .

While our main drives have been on physical education and history, geography and civics, we have tried not to neglect the other subjects. Naturally this year's work has been unique because everything has been connected up with war work to as great an extent as possible. It goes without saying that all of our schools have been most active in Red Cross work of all kinds and in the buying of Thrift Stamps and Liberty Bonds. I have made arrangements in all my schools to see that this work is carried on under direction during the summer.—*Mabel L. Bennett, Union County.*

The war activities which have been introduced into the schools this year are doing what educators have dreamed of for years. The school is being more closely identified with life. School work is "motivated." The boys and girls are doing more real' live work than ever before and they are getting a real education—an education for service. The three R's of the school are no longer Reading, 'Riting and 'Rithmetic, but "Relief, Rescue and Reconstruction." . . .

Children get real joy in making something which is going to be of service.

Many times I have been greeted with enthusiastic clapping when I have gone into a schoolroom carrying Red Cross materials to be made up. Eight hundred and seventy-four of the country children of South Warren County are now proudly wearing Red Cross pins and are learning the lesson of service. . . .

The war gardens of Warren County are being worked harder than ever this year and are proving a success. The children are busy fighting the Germans, which they call the weeds and the pests. . . .

The regular work of our schools has not suffered because of what the children are doing in Uncle Sam's fight—doing with cheerfulness and enthusiasm. Arithmetic, language and geography are taught better than before. Children have something to figure for, something to tell about. . . .

The parent-teacher associations have recognized the need of increasing their efforts in the closer drawing together of the home and the school. The three all-day meetings of the Warren County Council of the Congress of Mothers and Parent-Teacher Associations which have been held during the year were most satisfactory. About 75 delegates from all parts of the county attended each of them. Encouraging reports were given from each association. . . .

Another need which is felt by the mothers, teachers and doctors of our county is a nurse to follow up the work of the medical inspectors in the schools. This will be one of our problems for next year. . . .

Besides having meetings for mothers and for teachers, it was felt necessary to reach even more people and to give the public a chance to see and to hear about the new work in the schools. This was done at the township commencements, which were attended by over 2,000 people. The seven commencements in the southern part of the county which I planned and attended were a real joy. As you suggested, the exercises were of a patriotic character. Physical training, too, was demonstrated by rhythm and folk plays.—*Vera M. Telfer, Warren County.*

We planned in the fall to do the following things:

1. To encourage the improvement of the physical condition and equipment (grounds, buildings) in every way possible
2. To improve the reading
3. To see that physical training was taught according to the monograph
4. To follow the monograph on geography, history and civics
5. To have the schools help in winning the war

Realizing that brick cannot be made without straw, and that in rural schools it is very necessary that the children have some occupational work, this was stressed first. . . .

The physical training has been popular in all the schools. The children have liked it and so have the teachers, even the oldest and most brittle of them. They have all grown younger and happier in following the physical training monograph. Several times folk-dances have been given as a part of the program at the parent-teacher association meetings, and the parents have always been very much pleased. Some of the teachers had had physical training in the normal schools; some of them had taken it at summer school. Did you hear of one of our teachers who was so very enthusiastic over his summer's

work that he told one of the state officials that he could teach as much physical training in ten minutes as the ordinary person could teach in half an hour? Those teachers who had had work in physical training were greatly helped by the instructor at the first county institute in the fall. When Miss Packer came in the spring the teachers had many questions for her and we profited more from her visit with us then than we would have done earlier in the year. . . .

There seems to be hardly room in this report for the war activities but they are to-day the biggest factors in our schools. Practically all the schools have joined the Junior Red Cross. They are all so proud of their pins and their certificates, which we are having framed. And the children are all so anxious to do something.

The boys and girls have invested well in War Thrift. We estimated that the children in the northern part of the county had invested \$5,000. This has meant industry and thrift for these boys and girls. They realize their responsibility and are proud of the work they are doing for Uncle Sam.

The making and conservation of food has also been a controlling interest in our schools. The children on whose school ground food was often found last fall have developed a conscience for food conservation, and the remains of lunches are no longer wasted. The boys and girls have entered into the spirit of using substitutes for those foods needed for the allies. They are not only conservers but they are producers. In every school there are boys and girls helping on the farm and making gardens. One of the one-room schools sent in an order for \$10 worth of garden seed. The children made up the order and got a lot of practical language work and arithmetic out of this one phase of the garden work. No situations have to be invented for vitalizing the subject-matter. We have live topics for every branch of the school work and we are trying to make the most of them.

The schools and teachers are doing their part in encouraging the Red Cross work and the buying of War Savings Stamps and Liberty Bonds. Numbers of patriotic meetings have been held by the schools. Spring Valley school, in Hardwick County, gave a patriotic program on the Sunday before the launching of the Third Liberty Loan. The teacher had decorated the room with flags and Liberty Loan posters. It was very attractive and there was a full house to hear the program. A speaker from Blairstown gave an address and took subscriptions for the Liberty Loan. The meeting was very successful. Eight schools competed for the medal given for the best four-minute speech on Liberty Loan.—*Margaret E. Taylor, Warren County.*

NEED OF AMERICANIZATION IN NEW JERSEY

Among the young men who came to Camp Dix as a result of the draft, in the first contingent approximately 21 per cent were, by the standards there imposed, illiterate; in the second contingent approximately 25 per cent were illiterate, and in the third contingent 33 1-3 per cent.

Some of these men were from New Jersey.

In the census of 1910 more than five millions of persons in the United States above the age of 10 were found to be illiterate. Of these, 113,502 were reported from New Jersey.

Quoting from the United States census of 1910, there are 113,502 illiterates in New Jersey, representing 5.6 per cent of the total population 10 years of age and over, as compared with 5.9 per cent in 1900. The percentage of illiteracy is 14.7 among foreign-born whites, 9.9 among negroes, and .9 among native whites.

For all classes combined, the percentage of illiterates is 5.8 in urban communities and 5 in rural. For each class separately, however, the percentage of illiteracy in the rural population exceeds that in the urban.

For persons from 10 to 20 years of age, inclusive, whose literacy depends largely upon present school facilities and attendance, the percentage of illiteracy is 2.4.

These are startling figures, and they are enough—unless measures are taken at once to correct this state of affairs by public education—to give any intelligent American a feeling of apprehension. The war has revealed the necessity of democracy as a form of government, but it must be an intelligent democracy. A democracy cannot be intelligent if so large a portion of its citizens are illiterate.

It is of the highest importance that in New Jersey, as well as in other states, measures should be adopted to give the rudiments of an English education to this large mass of illiterate citizens.

Moreover, such an education is necessary before we can give these persons a comprehension of the fundamental ideas of American life, citizenship and institutions, and of allegiance to the principles upon which the government of the United States is founded.

A law requiring education in the rudiments of English and Americanization of all illiterates between 16 and 21 should be enacted.

PHYSICAL TRAINING

The provisions of the physical training law were reported in the last Annual Report.

One year's experience in the operation of the law has proved its worth. It is popular with the public, with teachers, and with the children themselves. Physical training has made schools more interesting; it has given new life and new enthusiasm to hundreds of schools throughout the State. The exercises have been given chiefly

Even arithmetic is fun here

**First steps in citizenship making
ILLUSTRATIONS FROM MILLVILLE SCHOOLS**

outdoors in cold weather as well as in moderate weather. This has added to the popularity of the law.

Teachers as well as children are taking part in these exercises. In consequence the law has been as beneficial to them as to the children. Children and teachers alike have testified to the fact that physical training is worth while in promoting the regular studies of the school because of the increased vitality of the children.

Children are learning to play; they are standing more erect; and the discipline of schools has been improved. These are only a few of the benefits of the law.

The Commissioner said in a letter to the teachers of the State a year ago:

The physical training law expresses the popular will that the children and youth of the State should be so trained that physical vigor should be a support for their intellectual life, their spiritual life, their industrial life, and last but by no means least, for their civic and patriotic life.

He whose blood is red, whose muscles are hard, whose sleep is sound, whose digestion is good, whose posture is erect, whose step is elastic, whose endurance is lasting, and whose nerves are steady, has just so many resources in life. Physical vigor and soundness contribute to happiness, to accomplishment and to service to society, to State and to country.

After a year's trial in the schools what was said then is repeated now but with a more confident emphasis.

The fulfillment of the law has made it necessary for schools in many cases to extend their hours 30 minutes a day. Parents and teachers accepted this with but few protests. They saw that a school day extended 30 minutes, with physical training—calisthenics, posture exercises, rhythmic steps, games, etc.—was not so taxing as a shorter day with these exercises omitted.

It should be said that whatever success has attended the operation of the law is due to the fine spirit of most school officials and teachers in carrying on its provisions. The physical training law compels a departure from traditional school practice but not from traditional theories about the purpose of education. These theories have long recognized the needs of physical education but the schools as a whole have been slow to translate theories into action or practice.

The revelation of the war, showing the physical imperfections of so many of our young men, has awakened the public conscience to the necessity of physical fitness as a part of equipment for life.

The Surgeon General of the United States Army has reported that in the first great draft 29 per cent of the young men of this country were rejected for service because of physical defects. The medical profession is well-nigh unanimous in its belief that, in the majority of cases, these defects resulted from conditions that were preventable. Physical training experts and physicians both tell us that systematic exercise, vigorous games, and recreational activities, as well as a more thorough knowledge and application of the laws and rules of healthful living, will make for stronger and healthier children.

There is, too, an increasing public interest in all health matters, which is so much capital for the law inasmuch as the law is essentially a health or preparedness measure.

New Jersey was the second State to adopt a State-wide physical training program for its schools. The action of our Legislature has been highly commended by those who have studied school systems and the needs for successful living.

The course of study or exercises has been generally commended and copies of it have been called for from all parts of the country.

The immediate problem after the course of exercises had been prepared was to train the teachers who were to teach this subject. In several of the cities of the State and in numerous smaller municipalities physical training was not new but in the majority of districts it was new. No school system, however, had required 150 minutes per week, as was provided under the Pierson law.

The Department, with the aid of the State Board of Education, undertook the following activities in order to make the law as effective as possible.

1. There were established in each summer school courses for the training of teachers. All beginning teachers were required to take these courses.

2. The courses in the normal schools were strengthened. At the Montclair State Normal School preparations were made for the training of supervisors and directors.

3. Meetings devoted to physical training were begun in different parts of the State immediately after the schools were opened. The purpose of these early meetings was to discuss with educational leaders the provisions of the law. These meetings were attended by superintendents of schools, supervising principals, high school principals, helping teachers, and directors of physical training.

4. Physical training was stressed as a part of the county institute

programs in October and November. Physical training teachers were employed to give the instruction in the form of actual demonstrations or work by the teachers.

5. Subsequently a physical training expert was employed to give instruction. She provided demonstrations for groups of teachers in various centers, especially in counties in which institutes had not been held.

6. Meetings were later held with high school principals and high school teachers to discuss physical training in its application to the high schools.

All these activities were made possible by appropriations of the Legislature.

There were throughout the State voluntary associations of teachers who met on Saturdays for instruction by some paid physical training expert. The expense was met by the teachers themselves.

Physical training directors and supervisors in the cities of the State have been generous in giving their time and counsel for meetings of various sorts. The helping teachers in the rural districts have been unsparing in their time and strength to make the law a success in those schools.

At the graduating exercises at the close of the year physical demonstrations were given in numerous instances; at the county athletic festivals or field days held in some counties physical training has been emphasized; on other occasions, such as parent days, "Visit-the-Schools Week," and other similar times, opportunity was given to the public to see the work of the children.

While the working of the law has been on the whole satisfactory and encouraging much remains to be accomplished. It has been difficult for some high schools to adjust themselves to the requirements of the law. Especially is this true of schools which had physical training before the law went into effect. In some schools there has been an indifference to the provisions of the law.

It has been pointed out to all schools: first, that the law is mandatory; second, that the time necessary for physical training has the right of way over all other exercises of the schools; third, that 150 minutes a week, exclusive of recesses, must be devoted to this instruction; fourth, that the State course of study or exercises is to be followed as far as possible; fifth, that the condition of State approval of such schools is dependent on the enforcement of this law; sixth, that the so-called informational subjects—hygiene, first

aid, nursing, etc.—are just as much a part of the exercises as calisthenics and gymnastic practice.

It has been difficult for some high school administrators to adjust their programs to these requirements. These difficulties are realized but the law is specific in making demands upon all the schools of the State and not upon some of them.

To make the physical training law fully effective adequate and competent State supervision is required. Many teachers are untrained and will need constant help if the work is to be done as it should be done and be of real value to the children. The State should not hesitate to provide such help.

Beginning with the school year 1918-19 two physical training directors will be employed to give aid to school officials and teachers in carrying out the provisions of the law. Such expert help and guidance are actually necessary in all communities. Moreover, there is a danger that without such leadership some of the enthusiasm which attended the first year's operation of the law may be lessened.

The schools are called upon in these critical times to undertake so many activities that someone with expert knowledge of physical training must make it his sole business to promote this vital form of public education and training.

A gymnasium is not absolutely necessary for this instruction. Excellent physical training can be carried on outdoors, in the school-rooms, and in the corridors of schools. A gymnasium, however, is a very desirable provision for physical education and should be provided in the larger schools, both elementary and high.

Jump standards, hurdles, shots, bean-bags, volley balls, playground balls, ropes, basket balls, field hockey outfits, and soccer footballs are not expensive and will do much to lend added interest to physical training, as well as make possible the selections of many interesting games.

The beginning that has been made in the program for physical fitness is excellent. Our physical training manuals provide for instruction in health or hygiene apart from the exercises for physical training. The statute requires this.

The Department issued in 1915 a pamphlet or course of study entitled "The Teaching of Hygiene and Safety." The new physical training manual includes most of the material found in the former manual. The aim of this instruction in hygiene is to build up right

habits of personal conduct or hygiene. The old type of physiological or anatomical instruction is giving way to the modern type of instruction for correct habits of living.

Good health clubs have been established in some counties and have been very salutary in their effects. Here is a brief description of one of these clubs in Hunterdon county:

HUNTERDON COUNTY HEALTH ASSOCIATION

A. The association and its purpose. The Hunterdon County Health Association comprises all the Hunterdon County Health Clubs in the rural schools. Its purpose is to make Hunterdon County boys and girls *Healthy, Clean, Happy Citizens*. (This meaning of the club initials, H. C. H. C., may be a secret known to club members only).

B. The Hunterdon County Health Club. The pupils of each school shall organize their own Health Club. Each room shall elect at least once a month its own health officers. The officers may appoint assistants to help them with their work. The chief health adviser is the teacher.

C. The duties of the pupil health officers and their assistants shall be:

1. To keep the schoolroom well aired.
2. To assist in keeping room and school ground clean but not to conflict with the work of a paid janitor.
3. To keep outbuildings clean.
4. To assist with games on playground.
5. To assist in making the daily health inspection.

D. Method of making daily inspection.

1. The chief pupil officer takes the chair and asks the daily inspection questions. Each pupil scores one point for himself and school when he answers "yes" to a question. The club secretary keeps a daily record of points scored by the room. The teacher is judge of all doubtful cases.
2. If a pupil is absent he does not score.
3. At end of the month the total number of points made by the room is to be divided by the number on roll. This will give the average number of points for the room. A percentage can be found by dividing the average number by the greatest possible number that could be made by a pupil during the month.
4. At the close of the month any school having 75 per cent or over wins a County Association Certificate. The school having the highest percentage wins the highest honor of the County Association, a red and white H. C. H. C. banner.

E. The daily inspection.

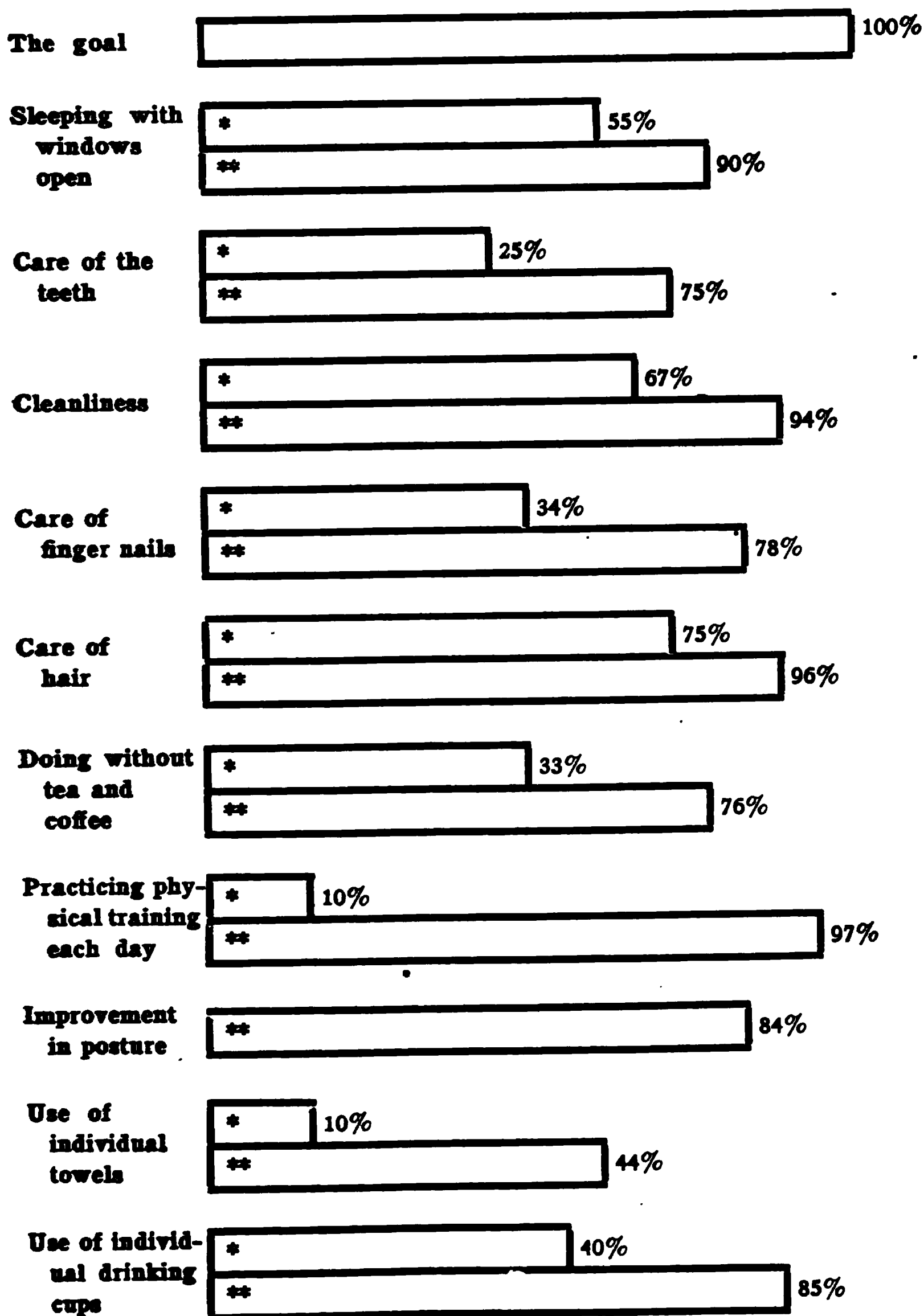
1. Did you sleep with your windows open last night?
2. Did you brush your teeth last night and this morning?
3. Did you wash your face, hands, neck and ears before coming to school?

SCHOOL REPORT.

4. Are your finger nails clean? (If a pupil bites his nails he does not score until the habit is broken).
 5. Did you do without tea and coffee yesterday?
 6. Did you play at least one game yesterday?
 7. Did you practice at least three physical training exercises yesterday?
 8. Did you try to sit, stand and walk correctly yesterday?
 9. Did you keep your desk and surroundings in good order yesterday?
 10. Did you do at least one helpful deed yesterday?
- F. The weekly inspection. On Monday ten extra points may be given as follows:
1. Did you take a bath last week?
 2. Did you use your own towel and drinking cup every day last week?
- G. At the close of the month 5 per cent may be added to the school's record if the Health Club officers and their assistants have faithfully performed their duties.
- H. The club colors are red and white. The club pin is white with the letters H. C. in red.
- I. The official club yell is:
- Ha, Ha, Ha,
Zip, Boom, Bah!
H. C. H. C.
Rah, Rah, Rah!
Hunterdon County Health Club!
- J. The Health Club pledge is: "I will work to make my body healthy, clean and strong so that I shall be a good citizen and a happy, useful member of my home and community."

RESULTS OF HEALTH CLUB WORK DURING 1917-18

The benefits derived from the Health Club have been far reaching. The daily health inspection, with its number of points to be gained for the individual and the school, formed a direct stimulus for the improvement of personal health habits. The following graph, based on reports from 1,752 children, shows just how great the improvement has been. Each school elected its own health officers each month and thus the children learned how to conduct an important civic duty. The work of the pupil officers formed one of the best mediums for the training of leadership. The work of the club in its relation to the central County Association gave the pupils a larger community consciousness, which is so much needed in rural affairs. Finally, the work of the club taken as a whole has done much to formulate in the minds of Hunterdon County boys and girls ideals of a *Healthy, Clean, Happy Citizenship*.



*September, 1917.

**June, 1918.

Two other factors affect the building up of health. One is medical inspection; the other is the lighting, seating, ventilating, heating and cleanliness of our school buildings and premises.

In numerous places in the State, notably in most of the large cities, medical inspection is carried on effectively, usually with the aid of school nurses. This inspection is also well done in some smaller towns and districts. In these places the school authorities see the value of the protection of the health and lives of children. Public sentiment deems the money used for such protection and welfare as money well spent.

Medical inspection fails of its purpose in many districts because the inspectors are poorly paid; because of the difficulty of securing competent and industrious physicians; because the board of education does not believe medical inspection necessary; and because of the lack of supervision.

Too many children are stoop-shouldered, anemic and underfed. Some of them have poor eyesight and many more have defective and neglected teeth. In those schools where the medical inspection is poor the children grow up uncared for, for many of the homes pay little or no attention to physical imperfections. The defects continue and what is the result? Physical deterioration of men and women, who are unable to play their part in the world.

The examination of drafted men was needed to show how many physically defective adults we have among our young men. The government has been forced to make provision to rehabilitate these men. This should have been done by the public schools long before the young men reached the draft age. The economic loss is great.

"The State cannot afford to educate for physical fitness." This one sentence is the stock objection to a definite and effective program for health conservation. The truth is, the State cannot afford to do anything else.

Some other plan of inspection for rural schools should be adopted. There should be a larger unit of inspection than the township. It might be a portion of the county, or one physician might be engaged for a given number of children enrolled in the schools. The State should pay half the salary of the inspector. The appointment should be confirmed by the State Board of Education upon the recommendation of the Commissioner of Education. The inspector should perform practically the same duties as set forth in the present statute. The office should be financially attractive and dignified, as its importance warrants.

The inspection should be supplemented by a school nurse whose work would be to follow up cases into the homes; who would in consequence work with the parents and endeavor to secure medical treatment of children excluded from school, and who would assist in bringing about better home sanitary conditions.

These nurses are now very generally found in the cities of the State and the testimony is universal that they are vital and necessary in bringing about good health conditions. A good school nurse is worth her weight in gold.

There is an enormous waste going on in education in this State because children do not go to school; because homes are uncared for, unsanitary and neglected. This applies not merely to some cities but to some country districts as well. I have seen personally some of the worst cases of family or home life in country districts that could be found anywhere. The cities, by means of school nurses, are taking care of the situation fairly well, wherever a sufficient number of nurses are employed. The country child is as valuable as the city child. The State cannot afford to allow any of its children to grow up without education and uncared for in their bodily health. To be sure, uncared-for children are not by any means in the majority, but there is a minority and this minority is worth educating, training and saving.

It is said that country children, living in the fresh air and remote from crowded centers of congested cities, do not need health oversight and protection. A sufficient answer to this is found in the report of the Joint Committee on Health Problems in Education, of the National Council of the National Education Association, and of the Council on Health and Public Instruction of the American Medical Association. This committee made a very exhaustive study of the subject and reported as follows:

Country children attending rural schools are, on the average, less healthy and are handicapped by more physical defects than the children of the cities, including all the children of the slums. And this is true, in general, of all parts of the United States. . . .

For the last five years the death rate in rural New York has been higher than the death rate in New York City, the largest city in the world. It is apparent that within the last ten or twenty years the standards of life in cities, in relation to health at least, have risen above those of rural communities.

The committee above referred to speaks of the duties of the school nurse as follows:

The duties of the rural school nurse include prominently the following:

- a Assisting in the health examinations of pupils
- b Explaining to the parents the importance of defects found in children and helping in the arrangements for the medical, surgical or dental treatment required
- c Giving emergency treatment in health disturbances and following up treatment, under medical direction, for various conditions
- d Providing an important part of the health teaching for the pupils and giving in homes visited, suggestions and advice affecting not only the health interests of the children, but of the home

In many a community, not only in city but in country, the tactful, devoted nurse has made for herself a place of the greatest influence in promoting health and human welfare in general.

Every community should have the service of a nurse whose first, if not sole, duty is to care for the health of the school children.

Here are a few pertinent sentences from a pamphlet prepared by Dr. Thomas D. Wood, Chairman of Committee on Health Problems of the National Council of Education:

One of the appalling revelations of recent years is the conclusion, based on unrefuted evidence, that the rural school children in this country are handicapped by more physical defects than the pupils in the city schools. While several significant causes seem to be responsible for this astounding condition, the present physical inferiority of country children depends in part upon the fact that city children now receive more health care than do those in rural regions.

In the mobilization of our nation's resources for the stupendous task of this war, nothing is more dramatic or impressive than the inspiring spectacle of these young men being trained in preparedness for the intensive, the grim business of war. Records even of men in our great training camps, who have been accepted as fit for military service, show that in multitudes of cases, and within six months after the beginning of training, the improvement in health, in vitality, in physical and general efficiency, has been almost incredible. Shall we not provide as thorough and effective health care and physical education for the children of our country as we furnish for the young men in the army and navy?

The monstrous efficiency of the German Empire in this awful war is due in an important part to the organized health work, the national program of health care and education which has been conducted in that country for the last half century. . . .

Our schools are wasting enormous sums in educating, or trying to educate, the children who are handicapped by ill-health, when the expenditure of much smaller amounts in a judicious health program would produce an extraordinary saving in economy and efficiency.

Another factor vitally influencing the health and well-being of children is the condition of school premises.

While under the operation of the school building code great im-

Work for everybody

HEALTH ACTIVITIES IN CUMBERLAND COUNTY

A frolic

Health and happiness

Bridgton Schools

HEALTH ACTIVITIES IN CUMBERLAND AND HUNTERDON COUNTIES

A great day for the children

A greater day for the parents

Readington Township School Festival

provements have been made in the condition of our school buildings, much remains to be done.

The first offense here is the seating, for in many schools little children are compelled to sit four hours or more in seats too large, and with their feet dangling in the air. The desks are not only too large for health or comfort, but they are poorly adapted for writing or for using books. On the other hand, many large children are compelled to sit cramped in seats which are too small. The conditions are common in some parts of the State—too common for the welfare of children; they are as opposed to health as poor ventilation or bad light.

I recently visited a country school of one room, remote from a railroad, in which every pupil was sitting in a movable adjustable seat; the blackboards were low enough so that all children could reach them readily; the light was from the left and there was plenty of it. The room was clean and the toilets in excellent condition.

If such physical conditions are possible in one rural school, why not in all schools? I affirm that New Jersey ought to lead the country in the physical education of school children. The State is prosperous; there is great interest in education; the constitution explicitly declares in favor of sound and efficient education of children and youth. No education can be sound and efficient, however, that lacks in any sense preparation for physical fitness.

Mere talking about the importance of physical training will not bring it about. Physical training must be practical; health-promoting habits must be established; time must be devoted to it; and above all, the rank and file of teachers and superintendents must work for it and believe in it.

We have, then, a good course of study or exercises in physical training and an excellent course in hygiene. What we need is vitalized teaching. Whether or not we have this depends upon teachers, principals and superintendents.

The following is the law in regard to medical inspection:

Every board of education shall employ a competent physician, to be known as the medical inspector, and fix his salary and term of office. Every board of education shall adopt rules for the government of the medical inspector, which rules shall be submitted to the State Board of Education for approval.

The medical inspector shall examine every pupil to learn whether any physical defect exists, and keep a record from year to year of the growth and development of such pupil, which record shall be the property of the board

of education, and shall be delivered by said medical inspector to his successor in office. Said inspector shall lecture before the teachers at such times as may be designated by the board of education, instructing them concerning the methods employed to detect the first signs of communicable disease and the recognized measures for the promotion of health and the prevention of disease. The Board of Education may appoint more than one medical inspector. A Board of Education may exclude from school any child whose presence in the schoolroom shall be certified by the medical inspector as detrimental to the health or cleanliness of the pupils in the school, and shall notify the parent, guardian or other person having control of such child of the reason therefor. If the cause for exclusion is such that it can be remedied, and the parent, guardian or other person having control of the child excluded as aforesaid shall fail or neglect within a reasonable time to have the cause for such exclusion removed, such parent, guardian or other person shall be proceeded against, and, upon conviction, be punishable as a disorderly person.

Furthermore, the State Board of Education has prescribed rules to be followed by these medical examiners for the examination of children.

The cost of medical inspection, including supplies and all expenses, together with salaries, was as followed by counties:

COUNTY	Total Amount	Per Pupil
Atlantic	\$13,141.61	.81
Bergen	19,722.76	.44
Burlington	6,218.64	.43
Camden	13,428.87	.42
Cape May	3,725.97	.76
Cumberland	3,559.54	.27
Essex	72,981.54	.62
Gloucester	5,414.46	.54
Hudson	59,756.54	.60
Hunterdon	1,403.00	.21
Mercer	14,995.78	.59
Middlesex	8,443.63	.30
Monmouth	10,766.07	.47
Morris	9,573.57	.63
Ocean	2,217.44	.45
Passaic	8,963.05	.19
Salem	2,361.27	.29
Somerset	4,057.09	.43
Sussex	2,953.49	.54
Union	17,455.49	.54
Warren	3,563.75	.43
Total	\$284,703.56	.50

STATISTICS ABOUT ENROLLMENT, ABSENCE, TEACHERS AND SALARIES, COVERING A
PERIOD OF FIVE YEARS

	1914	1915	1916	1917	1918	1918 compared with 1917 Incr. Decr.
Total enrollment of pupils, in all schools, day and evening.	537,311	563,240	578,931	579,243	596,413	16,170
This enrollment divided						
Day schools	496,899	519,880	540,287	544,281	561,325	17,544
Evening schools	40,412	43,360	38,644	34,962	35,088	1,374
Boys in day schools	250,705	263,228	273,079	274,701	282,789	8,088
Girls in day schools	246,194	256,652	267,208	269,580	279,036	9,456
Boys in evening schools	26,582	27,619	23,488	20,260	19,675	585
Girls in evening schools	13,830	16,741	15,156	14,702	13,913	789
Average daily attendance day schools	382,218	409,417	421,884	427,874	423,750	4,124
Average absence of each pupil	17	15	17	14	16	4
.....	34,217	35,741	37,784	36,694	39,859	3,164
.....	246,154	261,672	266,602	259,187	267,746	8,559
.....	136,914	148,472	157,718	161,892	167,529	5,637
.....	38,099	44,314	50,030	50,726	51,048	322
.....	25,463	24,872	23,668	21,494	20,015	1,479
.....	15,880	14,897	15,634	15,207	13,962	1,245
.....	†16,085	16,969	16,741	17,296	17,743	447
.....	2,082	2,281	2,414	2,492	2,414	79
.....	13,003	13,688	14,327	14,803	15,329	526
Teachers						
One room rural schools, total.	766	747	720	684	614	70
Men	126	123	107	78	49	29
Women	639	624	613	606	565	41
Two room rural schools, total.	450	483	444	460	419	41
Men	70	66	69	60	48	12
Women	380	367	375	400	371	29
Kindergarten, total	601	641	659	661	693	32
Primary schools,* total	5,428	5,635	5,896	5,928	6,079	141
Men	12	14	13	11	6	5
Women	5,426	5,621	5,793	5,927	6,073	146

*Primary schools include grades I to IV. Grammar schools include grades V to VIII. High schools include Grades IX to XII.

†Includes all teachers.

SCHOOL REPORT.

	1914	1915	1916	1917	1918	1918 compared with 1917 Incr. Decr.
* total.....	3,635	3,909	4,158	4,283	4,495	212
Men	235	248	269	256	317	39
Women	3,400	3,661	3,889	4,027	4,178	261
Kindergarten (women)	1,508	1,654	1,852	1,928	2,009	81
Primary schools*	641	619	714	733	714	19
Men	967	1,035	1,138	1,195	1,295	100
Women	341	351	379	412	460	48
Grammar schools*	148	153	172	190	194	4
One room rural schools	193	198	206	222	268	44
Men	311,415,629.00	\$12,391,576.00	\$13,845,693.37	\$14,449,414.81	\$15,785,310.12	\$1,335,895.31
Women	851.42	861.86	872.34	895.59	948.39	52.60
Kindergarten (women)	630.35	522.73	552.32	552.02	614.01	61.99
Primary schools*	468.56	477.19	481.42	497.72	544.23	46.50
Men	748.94	753.57	760.04	779.57	813.49	33.92
Women	690.21	654.73	760.00	914.09	869.66	44.43
Grammar schools*	719.37	729.14	737.00	756.04	791.09	35.05
One room rural schools	902.16	937.98	955.01	963.40	1,046.44	83.04
Men	788.48	821.11	831.43	850.64	888.53	37.89
Women	1,542.51	1,551.48	1,578.17	1,605.63	1,724.07	118.44
Kindergarten (women)	983.11	1,001.36	1,027.46	1,053.43	1,109.00	55.57
Primary schools*	182	183	184	172	178	6 days
Men	473	478	480	482	487	5
Women	2,124	2,166	2,194	2,190	2,181	9
Grammar schools*	65	60	66	45	42	3
One room rural schools	848	844	827	803	760	43
Men	\$57,670,323.00	\$54,354,823.00	\$59,293,017.56	\$74,144,551.94	\$79,999,965.93	\$5,855,413.99
Women	236	278	260	285	292	7
Kindergarten (women)	138	227	170	238	258	20
Primary schools*	153	229	312	323	453	139
Total	527	734	743	846	1002	156

*Primary schools include grades I to IV. Grammar schools include grades V to VIII. High schools include Grades IX to XII.

REPORT OF MONMOUTH COUNTY DEPARTMENT OF
CHILD STUDY

According to a statute passed in the session of 1917 a County Department of Child Study was established in Monmouth County. Mrs. Cornelia B. Meytrott was appointed supervisor of this department. The following extracts are from Mrs. Meytrott's report to the Commissioner of Education:

Some of the things which Monmouth County has accomplished toward properly caring for those whose minds have not developed normally:

A general survey of the county as to the number and condition of mentally retarded children in the public schools.

The passage of an act of the Legislature permitting the appointment for any county of a county supervisor of child study, this appointment to be made by the State Commissioner of Education upon the fulfillment by the county of certain conditions.

The appointment of a supervisor of child study for Monmouth County.

The beginning of an organization, under this supervisor, known as the Bureau of Child Study. Following is a brief statement of its purposes:

1. To stimulate interest in mental and physical hygiene in the schools and the community.

2. To examine as to mental development and health all children who are seriously retarded in school work or otherwise atypical.

3. To detect early manifestations of tendency to nervous or mental disorders among school children and combat these tendencies by preventive work in the school and the home.

4. To keep a permanent register of all who are mentally defective.

5. To plan for and direct special provision for the training and supervision of the mentally defective in school and community.

In order to carry out these plans the following experiments have been tried out in this first year of the Bureau's existence:

1. Three training classes for teachers, each class conducted twice a month, October to April, by the supervisor. Topics discussed: Problems of social welfare; The child welfare act of 1915; Methods of observation and questioning for the purpose of noting individual difference; Physical deviations from the normal; Mental deviations; the Binet and other methods of measuring intelligence.

2. Provision for further specialized training for seven teachers who have finished this teachers' course. Six will attend the summer school session of the Training School at Vineland on scholarships provided by private funds; the seventh begins special training in social service. . . .

During this first year it has seemed best to devote the greatest part of my time and effort to the trying out of plans. The work is so new that there are few precedents and none of those have been tried on a county basis. The experiments which give most promise of practicability and usefulness are: the movable clinic for children (where pupils are examined individually and

without witnesses); the afternoons for conferences with parents (at regular intervals in stated centers); the teacher group meetings (also held regularly at stated centers); and the "publicity" talks before representative groups of people—women's clubs, parent-teacher associations, and others.

These four—the clinic, the parent conference, the teachers' class, and the public address—furnish, of course, that part of the work which must be fulfilled by the supervisor alone.

Other very important parts of the work may be promoted by the intelligent assistance of others. First of these is the registration of backward and atypical pupils. This year's register is very incomplete; although approximately 400 children have been referred to this department, we know there are many more. Even in these 400 cases information furnished is meagre and sometimes inexact. The clerical work involved in getting satisfactory records demands much more time than the supervisor has been able to give. Even upon special request, returns have been very slow. The only way to meet this difficulty will be by a process of education for the principals and others who refer cases to us, and polite insistence that the prescribed forms be used. . . .

A brief statement of certain definite results is here given. With the aid of a nurse and physicians from the county public health work, all the children in one township (216) have been given careful physical examinations. Many of them have already been visited in their homes; the rest will be. The public health department will shortly furnish a corresponding physical and social record. A nurse is now resident in the community and treatment for physical defects will pave the way for better educational treatment. In another township a group of children were given mental examinations by the supervising principal, under the supervision of this office. This group has already benefited by the nursing service. Individual special work will begin in this school for those who prove mentally defective after adjustment of physical difficulties. Special work with groups begins next year at five other centers, Keyport, Red Bank, West Long Branch, Freehold and Leonardo.

In the county at large 39 children have been treated for physical difficulties as a result of their examination in this office because of backwardness in school work. Most of them had not been referred to before as physically defective.

EXTRACTS FROM ANNUAL REPORTS OF COUNTY AND CITY SUPERINTENDENTS

COUNTIES

Dorothy is a small rural community in Weymouth Township. The activities of two teachers in this rural community deserve mention. Under their leadership some conspicuous things were accomplished. In addition to teaching a first-class school, they organized a Senior Red Cross, a Junior Red Cross, raised money for a library, raised money for the purchase of a flag, and organized the community in such a way as to have a patriotic demonstration on Decoration Day.

The law with respect to physical training has been carried out in Atlantic County. The Boards of Education of Buena Vista Township, Hammonton and Egg Harbor City engaged special teachers for carrying on this work. In other districts the teachers applied themselves in a most satisfactory way. Many of the teachers of the county have had the advantage of training in the summer schools and found the work both pleasing and profitable.

The work of the helping teacher has the approval of the county. Teachers new to the county and inexperienced teachers were able to perform more efficient service because of her direction. Through her influence better textbooks have been obtained and a better community spirit established through the formation of parent-teacher organizations.

The county superintendent has endeavored to carry out the spirit of the School Law so far as practicable and has used his utmost endeavors to impress upon boards of education not only the necessary but the desirability of doing everything possible to make school conditions profitable for the children from the point of view of instruction, and sanitary from the point of health. Boards of education have been urged to furnish the highest type of medical inspection possible, to enforce the attendance law where necessary, and to provide adequate buildings, furnishings and supplies for instruction. The response has been very satisfactory. The buildings of Atlantic County are in excellent condition. A few of the poorer one-room schoolhouses would have been abandoned during the past year either by consolidation or by the erection of new buildings if building conditions had warranted. The majority of boards of education have done their part in securing good medical inspection and in providing sanitary conditions. The flags have been flying as the law requires, and as far as I am able to tell every effort has been made to inculcate patriotism by word and deed.—*Superintendent Henry M. Cressman, Atlantic County.*

The percentage of attendance fell slightly below that of last year, probably because of extreme cold and general war conditions. While the larger and more favored districts keep their attendance up to standard, it is to be feared that some of the smaller districts neglect to enforce the attendance laws, or to provide schools with the attraction for children so necessary to counteract the inertia of inefficient homes. . . .

Of the 272 teachers employed for the first time in New Jersey, who entered through the schools of Bergen County, all but one were normal or college graduates, or trained for some specialist's work. . . .

Most noteworthy work has been done by the helping teachers. Details would be interesting, if time and space permitted. The year's experience forces the conclusion that young, inexperienced but willing teachers can be guided quickly to do good and profitable work, while the usual old, experienced and unwilling type of teacher is often practically useless material for betterment.

Physical training is progressing fairly well, though a feeling or impression intrudes that there is a lack of snap in it, a failure to appreciate fully its importance, and a want of joyousness that should take the place of dull routine through physical training activities.—*Superintendent B. C. Wooster, Bergen County.*

After the new building in Mount Laurel Township has been completed there will still be left 15 one-room schools in Burlington County. . . .

The following buildings have been completed and are now being used. The price includes equipment:

Delran Township, Cambridge School (4 rooms).....	\$17,000
Evesham Township, Marlton School (8 rooms).....	31,000
Fieldsboro Borough (4 rooms)	12,000
Lumberton Township, Lumberton School (4 rooms)	20,000
Mt. Laurel Township, Masonville addition (2 rooms), making a 4-room building	8,000
Pemberton Township, Browns Mills (5 rooms)	20,000
Willingboro Township, Town House School (3 rooms).....	9,500

The following buildings are now in course of erection:

Mt. Laurel Township, Mt. Laurel School (6 rooms)	\$30,000
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Contracts have been let for the following:

Springfield Township, Juliustown School	\$9,000
Springfield Township, repairs to Jacksonville and Jobstown Schools	3,500

The standard of transportation furnished has greatly improved. This has been due to the fact that I have urged the districts to own their vehicles of transportation. This removes the element of bidding and brings about a uniform standard as to the type of transportation furnished. . . .

The cost, without question, is less than when done by private parties. The cost for Lumberton Township for driver, gasoline, oils and repairs was less than \$800 for the entire year. This included all transportation in the township, both grammar and high school grades, an average of 75 different pupils each day and a distance of 20 miles a day. . . .

There were nine group teachers' meetings held in Miss LeConey's territory early in the year; a number were also held later. The general plan of the meetings was as follows:

SCHOOL ORGANIZATION

1. Discussion of a "good school," as described by Superintendent Krebs in the *Education Bulletin*.
2. Need of attention to physical conditions.
3. Help gained by gaining confidence of pupils and parents at the very beginning of the school year.
4. Help gained from making as many routine acts as possible habitual and mechanical.
5. The value and need of good housekeeping.
6. Minimum essentials. Discussion of the value of the monograph as the course of study.

7. Workable programs.
8. Assignments.
9. Plans for the year.
10. Discipline.
11. Suggestions for community activities. . . .

A meeting of the County School Board Association was held on the second Saturday in December. Between 50 and 60 members were present. Twenty boards of education were represented. Mr. Maurice R. Massey, a member of the Beverly City board of education, gave a very interesting talk on the policy of a board of education. His talk was decidedly progressive in spirit and constituted to a great extent what he had experienced or hoped to accomplish.

The Association unanimously endorsed the war activities that were being carried on in the schools. It also endorsed the consolidation of schools with but one dissenting vote, and expressed its desire that the county superintendent would continue his efforts in that direction.—*Superintendent Louis J. Kaser, Burlington County.*

Appropriations for teachers' salaries for next year have increased on an average in the different districts only about 20 percent. I fear that this meager increase will not enable some of our teachers to remain in their positions nor enable us to secure others to take their places. You will recall that both you and I, by every means in our power, urged boards to ask for liberal salary appropriations. Unwise business sense and timidity in some cases prevented boards from doing this. The results are already manifest. Many teachers have notified their boards that they cannot maintain themselves on the salaries offered and have accepted positions in more liberal districts, or in other callings.

Our helping teacher has done very efficient work during the year. Her numerous group meetings have been excellent opportunities for the discussion of "difficulties and discouragements," methods, monographs, community interests, and a number of other matters of value and interest. Our county farm demonstrator on my invitation attended some of these meetings and took intelligent part in the discussion of some rural community work in the schools.

We have tried to stress physical training in all the schools of the county. At the end of the year we felt, however, that we had not attained all that we anticipated or nearly all that the importance of the subject demands. Districts having special directors of course made more satisfactory showings than those without. Some individual teachers, without special direction, secured remarkable success. Several teachers say that, in addition to the physical benefits, the training in the exercises has improved the discipline and life of their schools. The assembling and dismissing classes are more prompt and orderly, the same being true of responses in recitations and in all other activities of their schools. Of course the several meetings of teachers and supervisors in the interest of physical training made the thing possible in the districts without special supervisors. One group of about fifteen teachers secured excellent results. This group was organized by our helping teacher

and took regular weekly lessons from a trained expert.—*Superintendent Charles S. Albertson, Camden County.*

Beginning in September we held during the year a number of group club and association meetings, in which were discussed important details, and at least one demonstration class was used in most cases.

The various war activities in the schools, and physical training, necessarily always had places in our programs.

In the motivation of school work the war activities have proven valuable additions to the programs, and they have also aided immensely in bringing the schools into closer relations with community interests and community life.

We have given a great deal of attention to establishing the physical training work on the plan outlined in the monographs and have found very few slackers among teachers. Indeed, I can recall definitely but two who have hesitated about obeying the law, and perhaps three or four others who have been somewhat inclined to scamp the work, by repeating continually a few movements with which they were familiar. In every instance, however, there has been amendment as a result of our constant attention, and I feel that we have a fine basis established for efficient work during the coming year. . . .

Our County Vocational School work has been abundantly satisfactory during the year, and the results are in evidence in many sections of the county. I feel that we have established a valuable agency for the promotion of agriculture and interest in country life and one that has had no inconsiderable effect in increasing productions. It is winning its way into the confidence of the farming communities and has been growing in strength each year. I believe it has saved its cost several times in increased production and improved conditions.

The new high school building at Cape May City and that at Cape May Court House were both completed before the close of the school year. That at Cape May was opened for public inspection in June, and an exhibit of school work of various kinds was provided for the public information. The people were given an opportunity to examine the building at Court House at about the same time, on commencement evening, at the close of the exercises which were held in it.

We now have separate high school buildings for each of our six high schools, all of them modern and very well equipped. Those at Cape May City and Court House have gymnasiums and appurtenances, also rooms for basket ball practice and other activities. . . .

I cannot speak too highly of the untiring zeal and effectiveness of our helping teacher, Miss Gandy; I feel that the results obtained through her work are of incalculable importance to the schools and the communities included within the territory assigned to her.

Our various academic contests during the year, in spelling, high school English and elementary school English, have been abundantly successful and have aroused more than usual interest.

Our contests in agriculture, household arts and athletic sports are growing in success and importance every year.

The increase of interest in those in agriculture and household arts is

marvelous. All these activities are purely of public school creation and development and I have concluded that they can be best fostered and cared for by our public school organization. . . .

War conditions and difficulties seem to aid in the development of sentiment for the consolidation of schools in rural districts. We have already, in two of our township districts, a beginning in the shape of the transportation of sixth, seventh and eighth grade pupils to a central school, and we expect soon to have movements in two other townships for sectional consolidation.

The enrollment per teacher in our rural schools is not large, however, and I consider our rural conditions excellent, though capable of great improvement by consolidation. We have, at least, at the present time, attractive modern school buildings everywhere in our rural sections.—*Superintendent Aaron W. Hand, Cape May County.*

During the year the county superintendent and the helping teacher conducted five series of meetings. Two county association meetings were held in addition to the county institute. County Superintendent Rapp of Pennsylvania and Miss Anna Cressman were among the instructors at the first meeting, and Dr. J. W. Searson and Assistant Commissioner Scott at the second. Sectional meetings were held so as to make the meetings more profitable for all. An opportunity was thus afforded to each teacher to attend one institute or teachers' meeting each month. . . .

Physical training was stressed as strongly as possible all through the year. Scarcely a meeting was held where there was no demonstration lesson given either by pupils or by teachers. The physical training teachers of Bridgeton and Vineland assisted the helping teacher and the county superintendent at several meetings, and Miss Marianna Packer rendered splendid service at one series of meetings. With very few exceptions teachers did excellent work in the subject of physical training. . . .

It is certainly a pleasure to report that no opposition to the helping teacher manifested itself during the year. On the other hand, teachers uniformly praised the work of this teacher and hailed her visits with delight. . . .

While it is not known at this time exactly how much the average increase of salary will be this year, it is safe to say that it is approximately ten per cent, thus making an increase in teachers' salaries in six years of possibly 27 or 28 per cent. This is a meagre increase when compared with increases in some other occupations. An inquiry made of Bridgeton employers has brought out the fact that during a similar period hands in a planing mill have been increased 31 per cent, policemen 33 per cent, stenographers 50 per cent, machinists 50 per cent, masons 50 per cent, carpenters 55 per cent, plumbers 66 per cent, farm hands 83 per cent, apprentice machinists 100 per cent, sheet iron workers 100 per cent, plumbers' apprentices 150 per cent. It is therefore necessary that still greater increases be made in teachers' salaries if it is expected to hold good teachers in the profession.

During the year county contests were held in written spelling, corn growing, sweet potato growing, poultry raising, canning, sewing, knitting and baking. An exhibit of the agricultural and home-making products was held at the

Bridgeton High School on Friday after Thanksgiving Day, and almost \$200 in prizes were awarded to the successful contestants. . . .

The closing of the one-room schools practically all over the county is only a question of time. During the year one school was closed in Deerfield, one in Hopewell, and one in Lawrence. This year the Board of Education of Hopewell have taken steps to close two more one-room schools, and Deerfield voted money to build an annex to the consolidated school at Deerfield Street, but had to abandon the project because of war conditions. The sentiment of consolidation is growing in other districts. Districts having complete consolidation now are Downe and Bridgeton; those having partial consolidation are Millville, Commercial Deerfield, Hopewell, Lawrence and Maurice River.

Transportation facilities have been greatly improved. Hopewell purchased two Reo automobile busses to take the place of five transportation wagons. Landis purchased two Wayne wagons at the expense of the district, and the Board of Education of Stow Creek has placed an order for an automobile bus to displace the time-honored wagon. In the other districts contracts have been more generally made for automobile transportation than in former years. For the growing sentiment in favor of consolidation and better transportation the illustrated lectures by Superintendent Driver of Indiana and Mr. Morse of Trenton are largely responsible.

During the year several measurement tests were made throughout the schools, among them the Ayres spelling test, the Starch reasoning test, and the Millville arithmetic test. These tests proved helpful indeed. The spelling tests proved conclusively that in the one-room school no need whatever exists for a spelling class in every grade, but that it is better to consolidate two, and frequently three grades in spelling. Measurement tests will be continued during the coming year in some of the fundamental subjects, such as, reading, spelling, writing and arithmetic.

There are four daily papers printed in the county and these papers gladly devote a column a week to county school news. This amount of news is contributed through the office of the county superintendent in addition to many items of school news contributed direct to the papers. The press is the greatest agency there is to mould public opinion and this fact is made use of in promoting a good school sentiment. . . .

Educational Sunday was very generally observed throughout the county. The ministers of the various churches accepted the idea with enthusiasm, and through their discourses brought the school and the home into closer union.

Fire Prevention Day was observed on October 9, as requested by Governor Edge.

Visit-the-Schools Week was observed. The one holiday and another exceedingly inclement day limited the time practically to three days. Twelve hundred visitors came to the schools, exclusive of the two cities.

Medical inspection presents another difficulty. There are too many medical inspectors who don't "inspect." In a few cases last year there were medical inspectors who did not examine their pupils before the closing month of school and who did not visit their buildings, in some cases, once in two months. So long as medical inspectors are not more closely supervised this condition will continue. We need a county medical inspector, who would oversee

the work of medical inspection through the county, and to whom the township inspectors should be responsible for the work of their districts. . . .

Finally, under the stress of war conditions, teachers' salaries must be more largely increased. So long as the Government will pay employees \$25 to \$30 per week for occupations which require no experience and no qualifications superior to those possessed by the average grade teacher, teachers will not be willing, even though they may be patriotic, to continue in the schoolroom for half of this amount. Right now, only four days before the opening of school, there are at least a dozen vacancies in the county, with poor prospects that they will be filled. Were the salaries offered \$85 a month instead of \$60 or \$65, I think teachers could be found.—*Superintendent J. J. Unger, Cumberland County.*

I am pleased to report that the recent amendment to the school law making physical education compulsory and setting up definite minimum standards both as to the character of the work and the time to be devoted to it has been received generally in Essex County as both timely and necessary. The number of physical training teachers and supervisors in the county has been increased during the year from 55 to 83. The rank and file of the elementary school teachers have responded splendidly and the increased interest in the physical training work has shown results both in the increased variety of the class work in this subject and in the higher standard of performance. I have in mind one four-room rural school in which a veteran principal of more than thirty years of service, with the help of his enthusiastic teachers accomplished remarkable results in folk dancing, with the double result of replacing bodily awkwardness with gracefulness and of bringing a very real pleasure into the school life of his pupils. . . .

The effects of the helping teacher's work are manifest in the greatly improved technique of instruction in the case of the experienced teachers; in the more rapid and more successful breaking in of the inexperienced teachers; in the increased zeal of the growing rural teacher, because her good work is under the continued observation of some one whose appreciation she values; and in the improved social atmosphere of the schoolroom. Outdoor physical training work, the purchase by subscriptions solicited and given by the pupils of phonographs and the use of these in marching and folk dancing, the re-grouping of the pupils so as to have the smallest possible number of classes and to facilitate the promotion by subject so far as is practicable, greater attention to the physical condition of the pupils—these are some of the concrete results of the helping teacher's work. . . .

Vocational education has been much advertised by reason of its possibilities for war preparation. This has undoubtedly stimulated enrollment in those boys' industrial schools that are moving along right lines and has offset the loss of enrollment due to the tendency of boys to go to work as soon as they can procure their working papers, because of the unheard of wages paid to even the most incompetent class of labor. So the county vocational school for boys had an increased enrollment in 1917-18 over the year 1916-17, and the enrollment for the beginning of the year 1918-19 is still larger. The school has trained upwards of 200 men either intending to enter the service or already drafted into the service, and it was a matter of no little satisfac-

tion to the County Vocational School Board to see how well the school plant lent itself to this work and to see the efficient work that the staff of instructors were doing in the eight weeks' summer course given to the drafted men. An electrical department was added to the school at the beginning of the year. . . .

Two real dangers seem to me to be growing out of this teacher shortage due to the war. The first is a great acceleration in the feminizing of our public school teaching force, which at the beginning of the war was already feminized to a greater extent than that of any of the great nations of Western Europe. The second is the withdrawal from the ranks, both of teachers in the service and of those intending to prepare for teaching, of many enterprising and energetic young women who are finding new, attractive and far more lucrative occupations opening up to them in other fields. . . .

The statement showing the cost of education per pupil in the various districts of Essex County certainly contains some food for thought. When a district having an average daily attendance of about 4,000 shows a cost of maintenance of school plant of over \$25,000 as over against a cost of \$10,600 in a district having an average daily attendance of 6,400, and when both cities have practically the same type of population and both are reputed to have good physical conditions in their school buildings, one naturally wonders why the cost of maintenance of the school plant in the one city is more than *four times* that in the other. But when one goes a little farther and notes that the cost of operation of the plant in the smaller city is \$13,000 more than in the larger; that the cost of auxiliary agencies and the miscellaneous expenses of the smaller are greater than those of the larger; and, finally, that the total cost of education in the smaller is only about \$3,000 less than in the larger, though the larger has 60 per cent more pupils than the smaller in daily attendance, one must needs come to the conclusion that here, if anywhere, is profitable work for the expert accountant and student of school administration! The people of the *State* ought to know how the larger of these two cities does it. The people of the *smaller city* ought to know how their board of education and city superintendent do it!—*Superintendent Oliver J. Morelock, Essex County.*

The interest shown in the new physical training law and the eagerness with which the school officials, teachers and pupils have endeavored to meet its provisions have been a source of great satisfaction to me.

The City of Woodbury is the only district employing a physical director. About one hundred and fifty of our regular teachers have taken a special Saturday course. I consider that many of them have succeeded well with their classes.

So much interest has been manifested in this part of our school work that public demonstrations were given in the open air, at Swedesboro, Clayton and Westville, at the request of parents. It would seem that the whole population of these towns was in attendance on these occasions. . . .

The agricultural exhibit was held in Glassboro, as usual, and consisted chiefly of corn and potatoes. The committee has added pig raising this year. Thirty boys and two girls are raising pigs. The First National Bank of Woodbury is financing the project by loaning the purchase money. This will

form an interesting feature of the coming exhibit since prizes are offered for the best pig exhibited.

The annual spelling contest was held the first Saturday in May and so thoroughly had the pupils mastered the two thousand word list that it was impossible to spell them down in the time allotted. An auxiliary list was therefore used.

The second annual public school day was held at Alcyon Park on the last Saturday of May. One of the interesting features was the "Crowning of the May Queen" by the Swedesboro school. Other features introduced were in keeping with the patriotic spirit of the times. The work done by the schools in physical training throughout the year showed to good advantage on this day. . . .

An attendance campaign for better school attendance has been on for the entire year. A banner was presented monthly to the schools having the highest percentage of attendance, and while our annual report this year shows a loss of 3 per cent. in attendance, I attribute it largely to the unusual weather conditions and the scarcity of fuel.

The enrollment for the year shows an increase of 408 pupils,—*Superintendent D. T. Steelman, Gloucester County.*

A twelve-room addition to Number 5 school, West New York, was completed and opened for school use about May 1st. This addition is of modern fireproof construction and a great credit to the town. The cost of the addition was \$67,000.

In November, 1917, a course of study for classes for foreign born residents was adopted for the county and recommended for use by the board of education. The judges of the courts have agreed to accept the certificates of pupils who complete the course in lieu of examinations by them for naturalization papers.

Increases in salary for the year 1918-19 were granted by all districts. The increases range from \$75 in Secaucus to \$150 in West New York.—*Superintendent Austin H. Updyke, Hudson County.*

The festival plan, entirely new in our county, was especially productive of splendid returns. The schools of the township assembled for a full day at a selected school center; the forenoon exercises consisted of regular school-room work by the teacher, contests in arithmetic and spelling, four-minute speaking contests, the awarding of Better Language Club pins, patriotic songs and addresses, demonstration of the work of the Hunterdon County Health Clubs, and physical training work. The afternoon sessions were presided over by a member of the local board of education and addresses were made by helping teachers, Mr. A. M. Hulbert, state organizer of girls' and boys' club work, Miss Anna Hauser of the State University, Assistant Commissioner Scott, residents of the locality and the county superintendent. A public sentiment was established for increased teachers' salaries, a more generous equipment of textbooks and supplies, an appreciative understanding of the work and influence of the helping teacher, and of physical training and other health activities. These gatherings have proved so helpful that their

annual recurrence is planned for.—*Superintendent Jason S. Hoffman, Hunterdon County.*

The school activities that contributed directly or indirectly to the winning of the war may be enumerated as follows:

Through the school children, literature on the subject of food conservation was sent to practically every family in the county and to a large degree the pupils secured the signatures to the food pledge cards.

On Tag-the-Shovel Day the pupils not only took home the tags and fastened them to the family shovel, but saw to it that those families who were not represented in the schools were supplied with these reminders to save a shovelful of coal each day.

In March every farm in the county was visited by the boys for the purpose of taking a farm census. They made up the summary for the different districts, showing the amount of labor needed during the summer, the crop acreage, livestock, seed and other farm supplies wanted or for sale.

Entertainments and socials were held in many schools throughout the county, the proceeds from these entertainments going to the Red Cross or to the Y. M. C. A. In some cases money was raised by husking corn or by doing other work.

In several districts a canvass of the community was made by the pupils to ascertain the number of people working for the Red Cross and the kind of work they were doing, and to distribute literature tending to create a greater interest in this work, as well as to encourage others to take it up.

Through the schools, Liberty Bonds to the amount of \$120,000 were sold, a large part of this representing the amount purchased by pupils and teachers.

Thrift Stamps were purchased by 3,105 pupils to the amount of \$15,300. Every school in the county was interested in the purchase of these stamps.

The number of garments and other articles made by pupils for the Red Cross was 5,602, while 2,485 garments were made for the Belgian and French children. Sewing and knitting by the larger girls, and sometimes by the boys and the smaller girls, was a familiar sight in every school.

In the Home Gardens Division of the Junior Industrial Army 1,111 pupils were enrolled, while 167 were enrolled in the Agricultural Division, and 51 in the Boys' Working Reserve.

In 27 schools service flags were displayed; in many cases appropriate ceremonies marked the display of these flags.

The teachers of the county generously responded to the request for assistance in filling out cards in the office of the Draft Board.

Special attention was given to the singing of patriotic songs and to flag drills and salutes, and four-minute speeches by pupils of the higher grades was a part of the language work and a feature at gatherings held in the school-houses.—*Superintendent Joseph M. Arnold, Mercer County.*

I am pleased to announce that, notwithstanding the fuel holdup and the unusual additional demand upon the schools, my report shows a general progress in all the lines of work.

The average number of days school was kept open and the average daily attendance were greater than the preceding year of 1917.

There has been no letting down of the bars, by reason of war demands, but additional bars have been put up and we have gone over without hesitation.

This result is due to the splendid patriotic spirit of our teachers, school officers and pupils. . . .

County Vocational School Number 1, at New Brunswick, has completed its third successful year. At the close of the 1917-18 school term there were in attendance at this school 69 boys. It is very gratifying to note that this represents an increase over the figure at the close of the first year of practically 100 per cent. The grand average percentage of attendance for the three years the school has been established is 94. The figure for the past term was 93.4 per cent. This term mark of attendance, creditable though it is, does not do justice to the boys, for upwards of 40 days attendance was lost during the trolley strike, when it was impossible for our boys to attend. This is rather remarkable when it is considered that the school was attended by boys from twelve different districts and that many of them are required to travel long distances. . . .

Eighteen boys have been graduated from this school. They are engaged as follows:

Corp. in U. S. Army (Volunteer)...	1	Laboratory assistant-chemical work.	1
Pattern Maker in U. S. Navy.....	1	Staunton Military Academy.....	1
Agricultural work	2	Clerical work	1
Printer	1	Machinist	1
Carpenter	1	Draftsmen	7
Wood worker on aeroplane frames..	1		

All these boys, except the two boys on farms and the printer, are in the employ of firms engaged in government work.

In addition to the above approximately 25 under-graduates have entered industrial lines and in the majority of cases are in munitions plants. . . .

At School Number 2, Perth Amboy, courses in machine shop practice and mechanical drafting have been organized. There is also a department for related academic subjects. This school has been in operation but two years, and has, therefore, no graduates. Upwards of 20 under-graduates, however, have been placed in drafting rooms, machine shops and mechanical manufacturing plants in and about Perth Amboy. The average percentage of attendance at this school for the two years was 92.5. Fifty-five boys were on roll at the close of the 1917-18 term. . . .

The County Vocational School Board contemplates the organization of a course in industrial chemistry at this school in the fall. The establishment of such a course has been urged by representatives of the large chemical manufacturing plants in and around the city. The present plan is to operate this department a certain portion of the time for part-time trade extension work for the laboratory assistants in the chemical plants. Employers have agreed to permit their laboratory assistants to attend school during the regular working day for four hours each week. It is also planned to conduct this department as a regular shop branch for the more advanced boys attending the day school. This department will be an innovation and its progress

will be watched with considerable interest by the Federal Board for Vocational Education. . . .

At the request of the County Vocational School Board, the Board of Chosen Freeholders has passed a resolution to issue bonds to purchase the new Perth Amboy Vocational School building with the five adjoining lots at a cost of \$20,500, and the purchase of 16 very desirable lots in New Brunswick at a cost of \$13,500 for a site for a new school building.

The board of education of Piscataway has just completed a two-story, four-room, fireproof addition at a cost of \$36,500 and furnished it in the most modern style.

The board of education of Highland Park has completed a two-story, fireproof addition of four classrooms to School Number 1, at a cost of \$35,000, and an additional lot of 200x300 feet has been purchased at a cost of \$3,000.

. . . .
Our monthly teachers' meetings have been regularly held and excellent work has been maintained under the supervision of the supervising principals.—
Superintendent H. Brewster Willis, Middlesex County.

To improve teaching and supervision there have been held in the county a three-day institute; two meetings of the County Teachers' Association—fall and spring; two general meetings conducted by the Supervisors' Round Table, to which all teachers were invited; a number of township group meetings under the direction of the county superintendent and helping teacher, and several meetings of the Supervisors' Round Table. . . .

The Supervisors' Round Table adopted and recommended for use in the county the minimal spelling list compiled by Hugh Clark Pryor and printed in the 16th Yearbook of the National Society for the Study of Education. Permission was secured to reprint the list, and several thousand copies were printed. This constituted the minimal list in practically every school in the county.

The Ayres measure of spelling ability was given to about 10,000 pupils in the elementary schools of the county. The report of the results was sent to every teacher so that she could compare her class with the county standing. In May, in connection with the meeting of the Monmouth County Teachers' Association, at least one-half day was spent on a discussion of the report and methods of improving the work in spelling.

The second annual May Day Fête was a great success. More than 15,000 people attended the Fete, which was held near Red Bank, on the grounds of the Monmouth County Fair Association. It was managed by the Monmouth County Supervisors' Round Table and was entirely the work of the schools, except that in the grand march there were about 1,000 uniformed Red Cross members, two machine gun companies of the State militia, a company of soldiers from Camp Vail, a military band from Camp Dix, two Monmouth County bands, and aeroplanes flying overhead.

While there are a number of progressive school and community organizations, I hope they will greatly increase in number. Every one organized is an asset to the school system. The school must contribute to the social life of the community. Teachers must more and more, be leaders or among the leaders of community organizations.

It is a great pleasure to record here the valuable constructive assistance rendered by the Monmouth County Social Service. During last summer and fall this organization made a social survey of Millstone Township, which is a typical rural township. During the school year a health survey was made. Both surveys are being followed up. A social worker took up community work in this and two adjacent townships last November. The aim is to enrich the community life. Each schoolhouse, of which there are eighteen, is to be used for the community's social life. In Millstone five of the six schools have active organizations. During this summer a teacher is engaged as assistant. They are having play hours for the children, assisting in the organization of the National Defense centers, and getting acquainted with parents among whom will be found community leaders. Following the health survey a nurse has been provided who gives her entire time to this rural township. Children are being taken to the hospital for treatment and plans are developing for dental work. . . .

High school pupils took charge of a tag day for the Red Cross. Receipts of single schools amounted to over \$1,000 for the day. The total reached several thousand dollars. This was planned by the county chairman, Mr. Rice. The schools donated the net proceeds of the May Day Fete, \$600, to the Red Cross. . . .

Probably nothing has received more attention than War Savings. Thrift for present national needs and eventually for life habits has been stressed indirectly through the sale of thrift stamps. The entire enrollments of many schools are buying thrift stamps, and exclusive of liberty bonds, a number of schools on June 1 showed per capita investments in War Savings of about \$10. . . .

Miss Wilson completed her second year as helping teacher in this county. She has been very successful in interpreting, through practice, the intention of this important law.—*Superintendent Charles J. Strahan, Monmouth County.*

The following table of comparative statistics indicates in the various particulars the progress, or otherwise, of the schools during the past three years:

	For the Year		
	1915-16	1916-17	1917-18
Number of pupils enrolled.....	14,638	14,709	15,160
Number of pupils in high school.....	1,648	1,692	1,791
Possible days attendance.....	2,337,267	2,176,388	2,372,343
Days present	2,076,131	1,968,681	2,094,929
Percentage of attendance	88.8	90.4	88.3
Times tardy	11,525	11,079	13,558
Pupils neither absent nor tardy.....	775	853	519
Number of day school teachers and supervisors	447	454	467
Number of normal school graduates.....	235	243	252
Number of college graduates.....	76	74	80
Average salary of men teachers, exclusive of supervising principals, non-teaching principals and special supervisors.....	\$924.15	\$945.54	\$1,070.43
Same of women teachers.....	681.68	692.44	731.67

—*Superintendent J. Howard Hulsart, Morris County.*

This year for the first time the following schools were consolidated with other schools, transportation being furnished where needed: Berkeley Township—Pine Beach School, Ocean Gate School; Brick Township—Herbertsville School (grammar department); Dover Township—White Oak Bottom School (making third school in this district to be closed); Eagleswood Township—Staffordville School, Oak Grove School (after building burned in March, 1918); Jackson Township—Webbville School; Long Beach Township—Sea Haven School.

Eleven schools (12 teaching positions) had previously been consolidated with other schools. Those, with the above, make 20 teaching positions in the county which have been consolidated. Transportation is furnished by auto busses where long distances are involved. . . .

The employment of a helping teacher to make possible close supervision of the teaching in the smaller districts which do not have other local supervision continues to be highly satisfactory. Her influence was felt this year at the very beginning in the more prompt delivery of textbooks and school supplies. This was brought about largely through the coöperation of the local principals, who were induced to make a requisition for the needs of the school before the previous term closed.

The organization of a health club in each classroom was vigorously urged by the helping teacher throughout her territory with most beneficial results. The county plan for these clubs aimed to develop individual responsibility on the part of pupils; to direct attention to, and the practice of, good health habits; to follow up in a practical way the physical training work and promote more regular attendance. The effect of the work of these health clubs shows decidedly in the improvement of the attendance, particularly in the bad weather in February and March.

To the helping teacher were assigned 29 schools in 17 districts. Of the 47 teachers in her territory eight were teaching this year for the first time.

The helping teacher has been highly successful in arousing a high degree of devotion to duty in new teachers as well as those with more experience; this done, her work in making material improvement in the classroom teaching has been easier and more successful. . . .

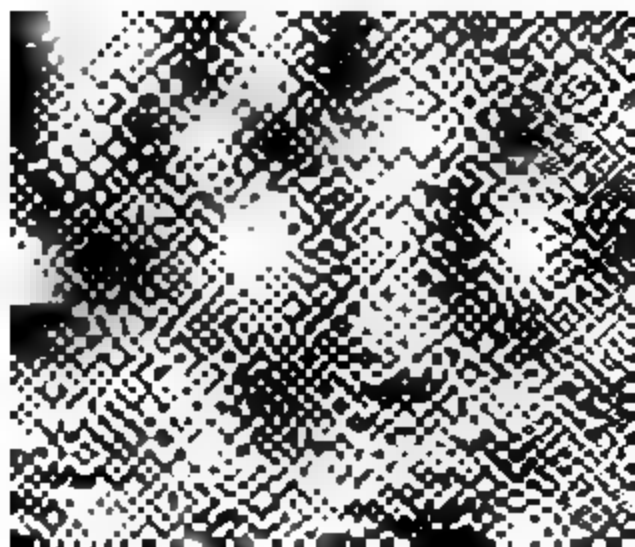
We undertook this year to conduct in February standard tests for all the pupils in the county in grades IV to VIII inclusive. The Kansas Silent Reading Test was used as a reading and general intelligence test. The Woody Tests in the fundamental operations were used in arithmetic. Samples of penmanship and composition were measured by the Ayres and Nassau County Scales respectively. In spelling, the abilities of pupils to spell the "100 demons," selected by Professor Jones, were carefully recorded.

After the tests had been given in February the supervisors met to study the results as they were tabulated for the county and for each separate supervisor's unit. They in turn undertook the interpretation of the results for each of their schools and for the work of each teacher. Only where this was done in rather full detail could the work of giving standard tests be expected to influence classroom teaching. . . .

Early in the year the carrying out of a field day at some central point for all the schools in the county was decided to be practicable. From the outset the propositions in mind were to arrange a day with features sufficiently

Plenty of fun

Everybody interested



No slackers here

A day for grown-ups as well as for
children

SCHOOLS AND COMMUNITIES OF OCEAN COUNTY IN COOPERATION

attractive to bring out a large number of people, especially from the smaller places—those people who do not have frequent opportunity to meet in large numbers; a day with events which would make a creditable exhibition of the work accomplished and which should be accomplished in physical training; a day with a varied program to include community singing, the picnic feature and stirring patriotic features. The program as carried out accomplished all this and more. Twenty-one hundred children were present from more than 40 schools. The total attendance, including children, was 3,500. The small admission charged paid all the expenses and left \$180 for the Junior Red Cross.

It is not too much to say that the day had a most beneficial influence on the morale of the children, and, I believe, on their parents too. The people of Toms River, where a number of street carnivals have heretofore been held, were loud in their praises of the orderliness maintained and the fine spirit which prevailed. I am convinced that the benefits of the day reached every community and will not be soon lost.

The assistance given by the board of education in transporting the pupils, and the interest taken by many persons of the county in assisting with the program, and for at least one day "being young again," cannot be commended too highly. . . .

The accompanying tabulation and diagram show the cost of education based on enrollment, which ranges from \$127.33 to \$26.09, the average being \$37.31. The average tax rate for the county per \$100 valuation for current school expenses is 40 cents. It is significant to note that of the 16 districts which spent more per capita than the average for the county, 13 have a tax rate for schools which is below the average for the county. Some of these, it will be noted, are very low. It will be noted also that all these districts are the ones which have extensive summer resort property, while the districts where the per capita ranks low and the school tax rate is above the average for the county are the districts which in general have no summer resort property.

The result of this unequal division of the cost of education within the county has meant that the quality of the school facilities provided have been correspondingly affected—better teaching and more generous supplies coming, as may well be expected, to the districts where the maintenance of schools is less burdensome.—*Superintendent Charles A. Morris, Ocean County.*

I believe that no feature of school work has been so kindly and enthusiastically received by pupils, teachers and parents as that of physical training. When school opened in September we all realized that this problem before us was a big one. Those teachers who had graduated from our normal schools in recent years knew what was expected of them and had excellent ideas regarding the work; others, who had been in service for a number of years, were completely lost. Within a very short time I learned that these teachers, with but few exceptions, were taking courses in the Y. W. C. A. or in private classes, and a few in different schools in New York City.

This fact, together with our group meetings and the help given by the Department, soon gave all a feeling of pride. We closed the year with a pronounced success. During the spring it was not an unusual sight to see the

sidewalks lined with parents watching this work. This part of the work has been carried on in Passaic County without one cent of additional expense to the taxpayers. In no place have we engaged a supervisor for the physical instruction. . . .

In connection with our usual means of procuring better teaching and improving teachers in service, a meeting of supervising principals was held, at which time, Mr. Scott, Assistant Commissioner of Education, conducted a Round Table conference. This conference was held after the supervisor and Mr. Scott had visited several classrooms and observed the teaching. . . .

In all districts salaries have been raised. These increases range all the way from \$100 to \$250. This has enabled us to hold many of our good teachers whom we would otherwise have lost.

Our attendance has been above the average, our teaching on the whole has been better than ever, and the spirit throughout the entire county unit is excellent.—*Superintendent Edward W. Garrison, Passaic County.*

Our total expenditures have increased during the twelve months covered from \$307,000 to \$336,000, an increase of \$29,000. Of this increase \$26,000 went for instruction purposes, \$21,500 of it going directly to teachers. The increase in the number of teachers in the county is 14, in the enrollment of pupils 492. There is a slight falling off in the percentage of attendance of about one-half of one per cent, due I think to the family demands upon children in these extraordinary times. . . .

The schools have done more extra things looking toward winning the war than they have ever dreamed of attempting before. I need not detail the work, but I will enumerate most of the activities that have received attention: something was done for the Y. M. C. A.; schools "tagged the shovel" at the request of the Fuel Administration, attempted the farm census, tested seed corn for farmers, joined the Junior Industrial Army and the Boys' Working Reserve, helped the Senior Red Cross, formed Junior Red Cross chapters, purchased Liberty Bonds and War Savings Stamps, made and displayed service flags, held junior four-minute contests, and, in a word, tried to be helpful in winning the war. All these activities helped to put a new purpose in the school work. A new interest was apparent wherever this work was undertaken. . . .

The quality of transportation in some districts has improved. Pilesgrove Township purchased five transportation wagons last fall and Upper Penn's Neck has purchased two this summer. I am trying to have this kind of thing done in other districts where road conditions require transportation by team and where the quality of transportation is not now good. Upper Pittsgrove is purchasing this year an automobile for the transportation of pupils. This will be the first district-owned automobile, though we have four other privately owned auto lines transporting pupils. Improvement is apparent in the quality of transportation.—*Superintendent H. C. Dixon, Salem County.*

The most significant feature of the school work of the year was the organization of 31 parent-teacher associations, nearly all of them being in rural districts.

Among the many virtues of these associations is that relating to organized

public sentiment. Heretofore the people at large have taken too little direct interest in the schools of their communities. Expression of opinion, desire for progress, have been individual, and therefore of little weight with boards of education. When, however, public opinion crystallizes itself in organized form, and committees representing the people of a community appear before a board, the effect is at once apparent. The board recognizes the fact that they are dealing with their constituents directly, and therefore proceed with confidence that, in taking measures to improve the schools, they have the support of the public.

To the parent-teacher association at Harlingen the credit is due for the action of the people in voting \$10,000 for a new two-room school. The association at Franklin Park set out trees and shrubbery in the local school grounds, under expert guidance, at a cost of \$70. It is hoped that a county association may be formed this year.

Every school in the county joined in Junior Red Cross work, either indirectly or in the form of French and Belgian relief. The work was well organized and the results gratifying.

The schools did nobly in buying and selling Thrift Stamps and War Savings Certificates. About twelve evening public meetings were held in rural districts, in coöperation with the schools, to promote interest in this movement, as well as to stimulate patriotism in other ways. Prominent speakers assisted at these meetings.—*Superintendent H. C. Krebs, Somerset County.*

This year, while one of the busiest, yet has been one of the most fruitful that our schools have ever experienced. Busy on account of the added work brought about by the great World War; fruitful because this war has brought to our attention and consideration many problems in the solution of which the children in our schools have done their full share and by doing it have been taught many useful lessons; lessons that will be useful to them as individuals and as future citizens of a great democracy; lessons in unselfishness, thrift, conservation, economy, industry, devotion and patriotism. . . .

Eight schools were closed during the year owing to small attendance. We still have, however, 13 schools in the county that had an average attendance of ten or less last year. . . .

The financial condition of our districts is most gratifying. Every district reports a substantial balance in current expense funds. Not a solitary district reports notes outstanding and very few have bills outstanding. . . .

There was a considerable shortage of teachers, but we were finally successful in filling all our positions. The shortage naturally led to a boost in salaries, which was needed. A comparison of average salaries will bear out this statement.

Primary grades: 1917, women, \$578.83; 1918, women, \$649.20. Grammar grades: 1917, men, \$875; women, \$650; 1918, men, \$931.25; women, \$701.04. High school: 1917, men, \$1,018.75; women, \$761.54; 1918, men, \$1,059.37; women, \$794.33.

In 1917, 37 teachers received less than \$500 a year. This year only 8 received less, and for the coming year \$600 will be the minimum salary. . . .

The work in physical training as a result of the law passed a year ago was very satisfactory indeed, surpassing our fondest dream as to the attitude

of the public, teachers and pupils. Every teacher, with two or three exceptions, did all she could to enforce the law in letter and in spirit. This is one of the best laws ever put on our statutes for the good of our future citizens, physically and civically.

The county exhibit of school work and school fair, both of which have become annual affairs, were much larger and better. The exhibit of vegetables and canned goods was easily four times the size of the previous year. The work in the county exhibit was largely of war activities in sewing, knitting, etc., with some academic work. A new feature in connection with the exhibit was a demonstration of physical training work by classes from a few schools, which took the nature of actual class exercises in breathing and gymnastic exercises followed by games and folk dancing.

Our teachers' meetings this year have been almost entirely of the demonstration type. In the fall we stressed the matter of physical training and reading and this spring we experimented with a new type of meetings which we found very productive of good results. Miss Farber and I divided the county into sections for observation work and using our autos and those of the teachers we took the teachers of each section to some central school for this work spending a whole half-day in the school. We chose teachers for demonstrators who were particularly strong in some phase of work—primary seat work, daily preparation, socialized recitation, physical training, etc. We asked these teachers to follow their regular programs and at the close of the observation we held an hour's discussion on methods, principles and results obtained, in which we had a most hearty response from the teachers. On later visits, in many of the schools we saw the results of the observation and conference. . . .

The time has arrived when teachers should stop guessing as to the progress of their children and begin to measure this progress by some good scale or standard. During the year we have made such tests in penmanship, using the Ayres Scale, and in reading, using the Kansas City test. The results in penmanship we published early in the year with good effect. The result of the reading will be given out in the fall.—*Superintendent Ralph Decker, Sussex County.*

Perhaps the one specific thing which has demanded more attention than any other in the year just past has been the satisfactory operation of the physical training act.

The State-wide demand for teachers of this subject soon exhausted the supply so that it was October 1 before some of our districts succeeded in locating people to supply their needs. It was another month before supplies and equipment could be secured and put into use. In the meantime, in order to avoid delay, grade and high school teachers were familiarizing themselves with the monographs and laying the foundation for the special teacher when his work should begin. The difference in training of these special teachers was so apparent in their work that it soon became necessary to hold conferences to avoid a difference in interpretation. Substitutions and eliminations were so frequent as to make it necessary to insist that the monograph be followed literally. Other exercises were to be used only after those prescribed had been carefully and satisfactorily taught. Fortunately we had two

very capable and experienced supervisors of several years experience who gave talks at our group meetings, illustrated by demonstrations with groups of children showing the method of execution of certain commands, class management, posture, breathing, etc. These two supervisors were permitted by their districts to visit a school either with my helping teacher or myself whenever it seemed necessary to give some special help to improve a difficult situation. This arrangement may not have proved at all satisfactory elsewhere, but for Union County it has worked admirably. Many of our teachers were without previous experience and while they were well-trained they needed help and suggestion in the art which experience alone can give.

Considerable difficulty was experienced at first in the successful operation of the outdoor exercise but this was gradually and almost completely overcome by patiently but persistently demonstrating its value. Generally speaking, the teachers have responded both to the letter and to the spirit, and realize more and more, as the days pass and their observations multiply, the real value of the open air exercise.

The purchase of playground equipment and the establishment of the supervised game have greatly improved the spirit of the children. I have yet to learn of a single instance where pupils under the direction of a teacher who has not lost the play spirit prefer free play to the supervised activity. It is my observation that not only is the health of the child being improved together with a keener, quicker response in the academic work, but a different relationship is developing between pupil and teacher marked by sympathy, understanding and appreciation.

To bring about a more general interpretation of the monographs, as well as to emphasize the necessity of a more careful study of the physical condition of the individual child, we have organized a Physical Training Teachers' Association which meets once every month. The membership consists of all instructors of physical training and all teachers who have been selected in the smaller districts to teach this work. While the association is young it has done much good work, and its influence has been felt in every district. The younger teachers have derived the most benefit, but the discussions have not been without value to the older and more experienced. . . .

A better general effort has been made this year to improve attendance, with the result that attendance officers have been more active, many old offenders have been disciplined, and irregular attendance has been improved. It has been difficult in certain districts to keep the school census alive. The old law which made it possible for a board of education to take a census every year was much better than the present law which permits one to be taken only once in five years. The law should be mandatory and should require a copy of the enumerator's report to be sent to the county superintendent of schools.

In previous reports mention has been made of our county contests, so that special reference does not seem necessary. During the year we have been giving special attention to spelling and penmanship.

The interest in spelling increases from year to year and our county contests were attended by a larger number of people this year than ever before. There was keener rivalry between districts and a more even distribution of prizes.

I have prepared a word list which is used throughout the county and con-

sists of a selection of words which usually cause difficulty in spelling.—
Superintendent A. L. Johnson, Union County.

During the year I made 220 visits to schools and attended 49 meetings of boards of education. In addition to these official visits I was present at 27 conferences of committees of boards of education and appeared on programs 43 times in 37 different communities. To do this work I covered approximately 6,500 miles. . . .

The parent-teacher associations, numbering 14, were another important factor in arousing and maintaining genuine interest in the schools. The county council of these associations, which held three meetings in as many different towns, assisted materially in creating favorable sentiment toward higher salaries for teachers and in supporting the movement for vitalized schools.

The fifth agency employed in keeping the schools efficient was the organization and convening of those charged with the various phases of school administration. The meetings of the associations of boards of education, medical inspectors and attendance officers magnified their duties and responsibilities and resulted in greater effort and enthusiasm in their respective fields. In these meetings, as well as in those of local institutes, the high school teachers' association and the principals' association, we emphasized the social side of school life by introducing a lunch hour during which the stiffest teacher left his pedestal. I am hopeful that this plan not only enabled the teachers better to organize and enter into the social activities of their communities but did, in fact, make them better teachers. . . .

The operation of the physical training act was made comparatively easy through the assistance of your Department. The county institute and, later, the local institutes conducted by Miss Packer were of invaluable assistance in showing the teachers how to use the monographs. It seemed a very opportune time to stress physical training and geography, history and civics and we put forth every effort to make the most of it. The program of every group meeting of teachers consisted of demonstration classes in these subjects and a discussion of the subject matter and methods employed. . . .

The newspapers that circulate in Warren County were exceedingly courteous and generous. The weekly public school newsletter issued from this office, usually a column or more, was cheerfully printed and widely read. I can confidently assert that this publicity was one of the most potent factors in creating and maintaining interests in the schools.

Owing to the gradual increase in salaries the professional training of teachers has increased. During the past year 69 normal graduates and 32 college graduates taught in Warren County. However, there is still much to be desired; for 148 were not graduates of higher institutions. The following summaries show the trend in salaries and professional training.

Teachers' Average Salary

	1916-17	1917-18
High school women	\$675.69	\$754.16
High school men	1,116.66	1,217.50
Grades 5-8 women	531.79	583.94

Grades 5-8 men	739.28	806.25
Grades 1-4 women	491.05	526.34
Two-room rural schools, women	441.66	490.65
Two-room rural schools, men	587.50	641.67
One-room rural schools, women	438.20	510.80
One-room rural schools, men	587.50	503.00 Decrease

Training of Teachers

Normal graduates	56	69
College graduates	29	32
Not trained	159	148

The value of the school property has increased as follows:

	Buildings and Grounds	Equipment	Total
1916-17	\$615,370.16	\$69,828.17	\$685,198.33
1917-18	642,010.00	79,414.00	721,414.00

—Superintendent Howard E. Shimer, Warren County.

CITIES

School as usual was neither possible nor desirable. Along with its limitations, the war brought also duties and opportunities. In spite of the many demands upon our time in the schools, we do not feel that the regular classroom work has been neglected nor do we feel that academic standards have been lowered. The various calls were looked upon by both teachers and pupils as additional work rather than as a substitute for the regular work. Teachers and pupils have all worked a little harder and a little more happily than before. Loyalty, patriotism, conservation and unselfish service are virtues that will outlast the war; their meaning is within the comprehension of all children. They are the foundation upon which our work has been built.

All the work done during the year has been based upon war conditions. Children as well as parents have shown deep interest in the work presented. The teaching has been of the best quality and the subject matter presented has been in keeping with the wishes of the National Food Administration. In spite of increase in prices, the amount spent for supplies was slightly less than last year. Constant reference to magazine articles and government bulletins resulted in more careful and intelligent work than we have ever had before. "Save, Substitute and Serve" has been the motto for the department.

During the last half of the year the high school students devoted all their time to Red Cross work. As many students came back voluntarily in the afternoons much more work was done than ever before. About 450 articles were made by the high school girls, consisting of bed shirts, convalescent suits, undershirts, etc. The same spirit of service existed also in the grades.

Our work in physical training was more satisfactory than we thought pos-

sible during the first year, especially in view of the fact that we have no gymnasium and very little equipment for the work. Our success was due in a large measure to the enthusiasm of our director, Miss Holmes. Student leaders were tried out in the fall largely as an emergency measure, but we have been so pleased with the results of student leadership in the high school that it will be made a permanent policy. Our lack of gymnasium was met largely through outdoor work. In spite of the unusual weather conditions we made good use of the outdoor gymnasium. . . .

Last summer Mr. Burch of the Bangs Avenue School was employed as director of home gardens. Approximately 250 students enrolled and many remained as enthusiastic in August as they were in June. A careful estimate placed the value of the products at about \$3,300. Mr. Burch has been retained to do this work again during the present summer. The number of students enrolled has more than doubled. There will be an exhibition with valuable prizes at the close of the season.

In November a system of school savings was installed. After January a large part of the savings was turned into War Savings Stamps. The total amount of school savings was \$2,370.88, or \$1.33 per capita. The total value of War Savings and Thrift Stamps owned by pupils at the close of the term was \$6,444.88, or \$2.89 per capita. In addition to this teachers and pupils own bonds to the value of \$59,160. A large number of thrift clubs were organized for the summer vacation. During the latter half of the year high school girls took charge of a number of booths for selling War Savings Stamps in the larger business houses. Their work is worthy of special mention.—*Superintendent A. E. Kraybill, Asbury Park.*

There were enrolled in the schools of this city for the year the following pupils: Kindergarten, 697; grades 1 to 4, 3,988; grades 5 to 8, 2,727; grades 9 to 12, 1,188; subnormal classes, 77; vocational, 171; total, 8,848.

This enrollment is somewhat larger than that of the school year 1916-17, but very much less than that of 1915-16. . . .

The number of teachers employed during 1917-18 was 323, seven less than for the preceding year. During 1917-18, 46 teachers tendered their resignations or otherwise severed their relations with the schools of this city. Of this number there were two deaths, six resignations on account of marriage, three to enter business, fourteen to accept positions elsewhere with increased salaries, six for causes unknown, and fifteen for war work of some form. . . .

The enforcement of the act making physical training compulsory has been satisfactorily accomplished during the past year. Our school sessions were lengthened 100 minutes per week. With the five physical training teachers in charge we found it possible to so arrange our schedules that the work of the physical training department could be effectively done and the provisions of the law strictly enforced. The five teachers in charge of the 13 schools of the city have been actively engaged, day after day, in meeting their respective classes, not only in the classroom, but also in the many outdoor activities organized by the department in classes for the play side of our physical training law.

For the coming school year we shall lengthen the day somewhat and place

still more emphasis on the out-door activities. There are two men teachers and three women in the physical training department. The full time required by the law has been given to the teaching of this subject and we have adhered, as far as possible, to the requirements as laid down by the state syllabus.

The enforcement of this law has met with no objection by any of the parents. The pupils have taken pleasure and delight in doing the work assigned to the respective grades. The outdoor activities, especially the play activities after school hours, have been emphasized. Taking all in all, the end of the year has shown marked results from the enforcement of the present law.

The schools as a whole have been actively engaged during the entire school year in some lines and phases of war work. Early in the fall of 1917 the student body entered into the spirit of the work as outlined by the Red Cross, the Young Men's Christian Association, and the Knights of Columbus. Children throughout the schools solicited subscriptions for these departments and thus became helpful in securing the necessary quota for each organization.

Early in January the necessary funds were raised by contributions from pupils of the city for the enrollment of the schools as a whole in the Junior Red Cross Society. All the children are now members of the Junior Red Cross organization. The work accomplished by the pupils, from the lower grades to the seniors in the high school, along Junior Red Cross lines has been most marvelous. The work was under the direction of Miss Clara H. Krauter, director of the vocational schools. Everything has been organized along systematic lines and all the teachers, with the pupils, have been doing their part of patriotic duty and service in making the articles usually supplied and made by the Junior Red Cross Society.

During the Second Liberty Loan drive the pupils took an active interest in securing subscriptions and thus were very helpful to the committee in raising the necessary quota allotted to this city.

During the Third Liberty Loan I assigned to each building of the city a certain quota which was to be raised by soliciting subscriptions. The amount assigned to the 13 buildings of the city on the basis taken for my distribution aggregated \$145,000. The pupils and teachers, however, entered into the spirit of being helpful and secured so many subscriptions for the Third Liberty Loan that, at the end of the campaign, instead of getting merely the necessary quota, they turned in subscriptions aggregating \$900,000. The most remarkable feature of these subscriptions is the fact that they were not large subscriptions, but mostly \$50 and \$100.

I believe that through the school children and teachers every home in the city was reached, and that every home, as far as possible, became the owner of a Liberty Loan bond.

The children were interested not only in securing subscriptions for Liberty Loans, the Y. M. C. A. and the Knights of Columbus, and necessary funds for the Junior Red Cross and American Red Cross organizations, but in purchasing Thrift Stamps or War Saving Certificate Stamps. We organized a Thrift Stamp Society in each school in the city. These societies held one meeting each week. Thrift Stamps and War Saving Certificate Stamps were sold to the pupils every Friday afternoon, sales being conducted between

1.30 and 2.30. The total amount of War Saving Certificate Stamps and Thrift Stamps purchased by the pupils from February 1 to June 30, 1918, amounted to \$16,355.95.

It will thus be noted that the pupils have been very active in all lines of patriotic war work. Such work has not distracted from the regular academic school work. It has motivated the work in such a way that pupils have been doing better work along many lines than in former years. It is notably true in English that our pupils have had the motivation for both oral and written work far superior to that of previous years.

Not only did the pupils of the respective buildings solicit subscriptions for the Third Liberty Loan, but the pupils of each building individually made contributions for a fund of their own school, and each school of the city purchased a bond, some \$100 and some \$50 bonds. This depended largely upon the size of the building and the district. These bonds will be held by the school, the interest to be used by the pupils from year to year in buying something of a patriotic character for use in connection with the school work. The cash to be received at the maturity of the bonds will be used by the then teachers and pupils of the school in buying something to be placed in the building to commemorate, in time to come, the active service of the pupils of 1918 in the Third Liberty Loan.

The pupils from each school wrote brief compositions in reference to the campaign thus waged in securing subscriptions for the Third Liberty Loan. A composition selected will be attached to the bond and, at maturity, will be read by each teacher of the building to the then pupils of the school. I am attaching herewith one of the compositions written by a pupil of the sixth grade.

OUR LIBERTY BOND

"The Great War has enkindled a patriotic spirit in every breast. When we think of what our boys are doing over there the most that we can do seems insignificant enough. However, we have watched every chance and answered every call with a spirit that would certainly encourage our boys. Our first call came in the form of a ray of cheer to our heroes in the army and navy. We gave \$303 for the Soldiers' and Sailors' Christmas Cheer Fund. We took the best of care of our poor at home and contributed \$450 without hesitation. We also raised money for the Junior Red Cross membership, even selling papers and tinfoil for some of it. We sewed and knitted after school hours for this. On Memorial Day we gave \$107 to decorate soldiers' graves. Pennsylvania Avenue School has always been near the head of the list in buying War Saving Stamps. Every Friday afternoon each room in the building tried to go "over the top." Many succeeded in doing this, although some missed it by a dollar or two. We bought \$1,500 worth and intend to continue with as much spirit through the summer.

"When the Third Liberty Loan came the children worked very hard to make it a success. In the end every school passed by far its allotment. Our Junior Four-Minute Men helped a great deal in this.

"Mr. Boyer, superintendent of schools, asked each school to buy a \$50 Liberty Bond, offering to contribute to the bond of each school. In order to

help our school a little bit, the principal and teachers dug deep into their pockets, and the children stayed home from the motion pictures in order to bring their money to school. A few days later we bought our Liberty Bond. How proud we were! When the Liberty Bond is returned the money will be used to buy a memorial for the school, to remember the boys and girls who bought it.

"As the war goes on we hope to be even more useful than this year. The boys and girls of 1917-18 leave school knowing that they have done their bit toward winning the Great War, and making the world safe for democracy."

It has been our aim and purpose to adapt our work, as far as possible, to war conditions. The boys in the carpentry department of the vocational school have given much of their time to making articles used in some form of war activities. All the packing boxes used by the American Red Cross Society of Atlantic City have been made by the boys of our vocational school. In the manual training department tables and other furniture have been constructed for our national cantonments. . . .

Taking all in all, the year's work was largely adapted, wherever possible, to present war conditions. The recipes formulated in the kitchens were printed in the printing department of the vocational school, and have been widely distributed in the homes of the community. Instructions for the conservation of food and the use of foods have been printed in the same manner and distributed throughout the city. It has been our aim to supply each pupil from the kindergarten through the high school with a copy of the bulletins thus issued. Such bulletins contained recipes, instructions, and reprints of some of the requests made by the National Food Conservation Committee.

The pupils are delighted to do this work for the departments. They not only give their time but are most willing to give more than their time to do the things which are of a patriotic character, and thus serve as a patriotic means not only for home conditions but for conditions at large, either national or overseas. . . .

The number of students in the vocational school has not been as large as it should have been. Many of the older boys left school early in the winter to take positions at Mays Landing or Hog Island. Some of the boys from the carpentry department have been able to secure positions paying from \$45 to \$55 per week. The electrical students were likewise successful in securing good positions. Many of the girls from the sewing department left school to accept positions in the sewing industries connected with war work.

We hope to increase the enrollment of the vocational school next year and with this in view are changing the course, thus making possible training in industrial work, and at the same time relating the so-called academic work to the requirements for admission to the high school. . . .

The year's work in general has been very successful. Much of the time was given to the so-called war activities. We have, however, been able to accomplish our usual amount of work in spelling, language, arithmetic, and reading. In fact, our work in language and spelling has been better this year than in former years. It was largely motivated by present war activities, thus making it possible to produce conditions in the schoolroom for both oral

and written work which could not have been possible in any other way.—
Superintendent Charles B. Boyer, Atlantic City.

The problem of Americanization in Bayonne is too large to be solved by the nibbling tactics of the night school. A school such as we have operated in the silk mill would accomplish much more. We need the fullest cooperation of the industries. The spirit seems to be willing, but it is difficult to work out a program acceptable to all. It is our firm conviction that these men must be taught on the time of the company and paid their regular wages while attending classes. We are pleased to know that some of the superintendents of the works are in agreement and we hope that a concerted drive for one language and one flag will soon be under way in this city. . . .

A survey of our school system reveals the fact that the largest number of retarded pupils is found in the fifth and sixth grades. These are pupils who have fallen behind because of lower degree of mentality. Ordinarily these boys and girls become discouraged and drop out of school just as soon as the law permits. For the past two years we have modified our course of study to meet the needs of these pupils. About half of their school day has been spent in hand work and the other half in academic work. The results have exceeded our expectations. To take one school as an example: a sixth grade was formed with about 45 pupils. They could not be rated at 6A under the regular schedule. A new interest was awakened in this group by modifying the course, giving only what was deemed essential, following the line of their interests. As a result 40 of this group remained in school and completed the eighth year work.

We do not feel that we have in any way lowered the standard of school work by thus catering to the capacities of this group. On the other hand we have given them what was their due and have better fitted them to play their part in the world. . . .

The state physical training law went into effect with the opening of school. The Bayonne schools have had physical training in all the grades for several years, given by special teachers. Two of our instructors have entered war service but in spite of this we have been able to carry out the law in every detail.

The home nursing and first aid required for the high school was placed in charge of a registered nurse with very satisfactory results. Groups of high school girls have entered classes under the direction of the Red Cross.

The work required in community civics for the ninth grade was not so comprehensive as formerly, when we gave more periods each week to the work. This work, together with the course in Problems in Democracy, was under the direction of Dr. E. W. Crecraft, of the history department.

I believe that physical training in the Bayonne schools has reached a high standard of excellence. . . .

The work of the defective classes continued along the lines of previous years. Four classes were maintained. The hand work of the pupils in caning chairs, weaving rugs and brush making was very creditable. A considerable sum was realized from caning chairs and from the sale of rugs. The proceeds of such work, over and above the cost of material, was given to the pupils who deposited it in savings accounts or bought thrift stamps. The

brushes were used by the janitor force and they were just as satisfactory as the brushes purchased. There is no reason why practically all the brushes needed in the schools could not be made by this class. . . .

The superintendent has held regular monthly conferences with the principals, at which times were discussed matters of vital importance to the school system. Among the topics discussed were:

What constitutes a good School Program?

The Improvement of Teachers—Experienced and Inexperienced.

The basis of Promotions.

Tests—Local and Standardized; their Value.

How to secure good writing.

The Intermediate Period—The Course needed for the Seventh, Eighth and Ninth Grades.

Prevocational and Vocational Courses for the Bayonne Schools.

The Rating of Teachers.

One principal was assigned as the leader in each discussion. The discussions were interesting and of value to all.

It is our purpose to continue these conferences. The superintendent regards the principals as members of his cabinet whose work is to outline the policies to be adopted for the school system.—*Superintendent P. H. Smith, Bayonne.*

In the war activities the schools have cooperated strongly with the committees of citizens having in charge the selling of Liberty Loan Bonds and War Thrift Stamps. In preparation for the Second Liberty Loan drive "Uncle Sam" visited each school in costume and gave the assembled pupils talks on the bond question. These talks furnished information for use in the compositions on Liberty Loans that were later written by all pupils from the second grade up. These compositions were taken home and read to parents, and no small amount of interest in the bond sale thus stimulated. . . .

Our courses in sewing have become largely courses in Red Cross work. Hundreds of garments for Belgian children and hundreds of pieces of work for the Red Cross activities have been produced by the girls.

Our kitchens have become demonstration centers for war cooking, and our girls are doing excellent work along this line. Last August about 40 high school girls, divided in squads of eight each, reported to the high school kitchen on given days and assisted our director of cooking in canning hundreds of cans of string beans, lima beans, tomatoes, peaches and other fruits and vegetables. The work of these girls was very highly appreciated because it was entirely voluntary.

The boys in one of our shops have made a large number of Red Cross shipping boxes. Our manual training department has also turned out some tables for use at Camp Dix.—*Superintendent George Morris, Bloomfield.*

The year has been one of many interruptions in the usual school program, but the interruptions have been educational and therefore legitimate in the highest sense. The times have been and are still big with opportunities for shedding new light upon history and upon history in the making. It has been our privilege to cooperate in every movement, as best we might, to meet the demands of the present crisis. We have impressed the lessons of saving

and service for the sake of country and humanity as they have never been taught before. We have glorified the spirit of sacrifice by raising in honor of our boys who are in the service of their country a service flag with nearly 50 stars thereon. We have begun the teaching of patriotism in poetry, in song, in word and in deed. We trust we shall have the vision to foresee the demands of the future and to prepare our boys and our girls to meet those demands with confidence.—*Superintendent H. V. Holloway, Bordentown.*

Our junior high school was organized three years ago by the transfer of all eighth grade pupils to the academy, where the ninth grade was already located. This arrangement not only relieved the congestion of the grammar buildings, but brought together in these two grades from three to four hundred pupils of approximately the same age and mental attainments. It makes possible better gradation of pupils and the introduction of varied studies including the industrial subjects.

Has the change been worth while? Has the new work been attractive to eighth grade pupils? To prove its success I have only to call attention to the persistence in school of this grade now as compared with former years. Three years ago the enrollment of eighth grade pupils in grammar schools was 141; in the academy the past year it was 202. Three years ago the graduating class numbered 120; last June it numbered 177. And this has been accomplished in the face of high wages and exceptional opportunities for work. . . .

It will be seen that the Bridgeton schools have been making progress in reducing educational waste; that the promotion rates now are much more nearly uniform from grade to grade than formerly. The break between primary and grammar school has been largely eliminated.

A feature of our promotion plan has been the rating of pupils by the use of standardized tests given to all pupils of the grammar grades. Those pupils who made exceptional records, as shown by these markings, were selected either for double promotion or for advanced sections in their own grades.

The following instance is typical of the results in many grades. Last September 20 Pearl Street pupils were selected for double promotion from the fifth to the seventh grade. Of these pupils all were promoted to the eighth grade this June. Only three of the number dropped from "excellent" to "good" in their averages for the year.

These standard tests are among the most important educational devices of the present day. During the past three years use has been made of the following: Woody, Stone and Courtis arithmetic tests; Trabue and Mannion grammar and composition tests; Thorndyke, Ayres and Zaner penmanship scales; and the Ayres spelling scale. The aim has been to acquaint ourselves with what is new and vital in these tests, and also to obtain a basis of comparison between our school systems and others.

An important change was made in our schools by the enactment of the physical training law. This department was organized in our schools in September, 1917. The course of study as outlined by the state monographs has been closely followed, although it will be a matter of some years to bring all grades up to standard.

The attendance officer is charged with the enforcement of the compulsory

education law. He makes daily visits to schools and homes, looking up the cases reported to him. During the year Officer Kincaid made 2,506 visits, served 150 legal notices, and brought nine cases for trial before the mayor. Since the establishment of this important office some years ago the actual attendance in our schools has increased 50 per cent.

The department of medical inspection includes the work of the school physician and the school nurse. The number of physical examinations made was 2,635, and the number of physical defects found, 411, or 15.5 per cent. Through the agency of the school nurse these defects were reported to parents and a large percentage of them corrected.

I would strongly urge that the scope of work be enlarged to include examination of the heart and lungs of each pupil. With physical training a requirement for every pupil it would seem necessary that this be done.—*Superintendent D. C. Porter, Bridgeton.*

The opening of the new high school building is decidedly the important event of the school year in this city. This new building has made possible the organization of a junior school in the old high school building. This school has been started with an enrollment of more than 300 pupils of the eighth grade. Later some seventh grade classes will be added, and when pressure of numbers taxes the capacity of the new high school building, doubtless ninth grade classes will be pushed back into the junior schools, of which we hope to have more than one by that time.

Facilities are provided in the new high school building for teaching cooking, dressmaking and millinery, and in making provision for this instruction it has been possible to secure supervision of this work in the elementary schools. Supervisors of cooking and sewing will add very materially to the efficiency of this work.

The garden work that has been conducted through the last two summers under the direction of trained supervisors has become a recognized part of our school curriculum. The garden supervisor has been made supervisor of elementary science and will supervise science work in grades four to eight, inclusive, throughout the year. A science outline has been prepared which deals with the scientific principles that underlie our ordinary household economy. This work will both grow out of and lead to our practical garden work of the spring and summer.

The appointment of a supervisor of grammar grades may be reported also as a forward step in our educational program.—*Superintendent James E. Bryan, Camden.*

Notwithstanding the confusion caused by lack of sufficient coal and the shortened school day, the final reckoning shows that we have had a year of successful accomplishment. The results of the state efficiency examinations, as well as of the superintendent's tests, indicate that our schools have held their own, in spite of the unusual distractions. All departments show an increase in enrollment. The elementary schools increased 5.6 per cent, and the high school increased 2.7 per cent. To be sure, this is a very small increase for the East Orange high school. The average increase for the five preceding years was about 15 per cent a year. The cause of the small increase for this

year is, of course, easily understood. In fact, we are surprised, and grateful, that there was not a marked decrease. . . .

We have not kept a very careful account of the amount subscribed through the schools to Liberty Loan Bonds, as many pupils secured bonds through outside agencies. The amount will, undoubtedly, approximate \$300,000 for the three issues. In the high school, however, a careful record was kept and we are pleased to report that the subscriptions by students and teachers through the agency of the school amounted to \$32,600 for the second issue, and \$37,450 for the third.

The pupils have also invested \$56,852 in war savings stamps and certificates, or \$8.85 per pupil, based on the average attendance. One hundred and ten boys enrolled for work on farms. Six hundred and sixty-five students are cultivating war gardens under the supervision of Mr. Heber M. Cubberley, instructor in manual arts. An interesting feature of this work is a demonstration garden in the center of the city, in which Mr. Cubberley, with the aid of certain students, demonstrates the methods of raising and caring for the several varieties of vegetables that can be profitably produced in this vicinity.

SALARY SCHEDULE (ADOPTED IN APRIL)

	<i>Minimum</i>	<i>Maximum</i>	<i>Annual Increase</i>
<i>High School</i>			
Principal	\$3,100	\$4,000	\$150
Vice-Principal .....	....	3,100	100
Department heads			
Men	2,000	2,800	100
Women	1,400	2,000	100
Teachers			
Men	1,200	2,200	100
Women	900	1,650	75
Supervisors of Art, Manual Arts, Household Arts, Music, etc.			
Men	1,800	2,200	100
Women	1,300	2,000	100
<i>Elementary Schools</i>			
Principals .....	....	3,200	150
Departmental (seventh & eighth)	700	1,300	50
Grades fifth and sixth	700	1,200	50
Grades first to fourth	700	1,100	50
Kindergarten (head)	700	1,050	50
Kindergarten (assistant)	650	800	50
Manual Training (men)	1,000	1,600	100
Special—Sewing, Cooking, etc.			
Women	800	1,300	50
General Assistants	700	850	50
Teachers Mental Defectives	850	1,300	75

—Superintendent E. C. Broome, East Orange.

During the year the board of education opened two new twelve-room school buildings and a one-room portable school in the northwestern portion of our city, increasing the number of classrooms by 25.

It is unfortunate that the requirements of the government for men and materials make it impossible for the board of education to proceed with the erection of a nine-room school planned for the southern section of our city.

It is a notable fact that our city has, during the past four years, increased its bonded debt by more than 33 per cent in order to supply necessary school sites and buildings. The total for this purpose exceeds \$1,300,000, providing a new high school building and six elementary schools, containing in all more than 100 classrooms and three large auditoriums. . . .

The board of education, realizing that the salaries paid its employees were wholly inadequate to the needs of the times, provided in May, when making the budget for the ensuing school year, for an increase in salary of each employee as follows: all receiving less than \$1,000 to have an increase of 20 per cent; those receiving \$1,000 to be increased 17 per cent; those receiving from \$1,020 to \$1,600 inclusive to receive 15 per cent; those receiving more than \$1,600 to receive 10 per cent, except the superintendent and the principal of the high school, each of whom received an increase of \$250.

This action by the board carried the minimum for teachers of grades 1, 2, 3 and 4 to \$685 and the maximum to \$1,020; teachers of grades 5 and 6 were increased to a maximum of \$1,080; teachers of grade 7 and beginners to a maximum of \$1,170; and teachers of grade 8 to \$1,230. In the high school the maximum for women was raised to \$1,525 and the maximum for men to \$1,980.—*Superintendent Richard E. Clement, Elizabeth.*

The daily sessions of the high school and the intermediate school were extended to six hours, divided into two parts—one for recitation and one for supervised study. In the intermediate school home study has been practically eliminated for most pupils. In the high school it has been considerably reduced for most pupils. We found that teachers, as a rule, did not know how to direct the study of pupils so as to aid them in the formation of effective and economical habits of study. Some teachers have made much progress during the year while others through lack of interest or lack of adaptability have made little. This perhaps was to be expected. We have been frankly experimenting. The results, however, have not been discouraging and the effort to make supervised study a means of educational growth will be continued with even greater energy and determination than in the past. Moreover, we believe that teaching children how to study should be, much more than it generally is, the conscious effort of those teachers of elementary grades who deal with children just beginning the use of books or having little experience with their use. We aim, therefore, to devote more thought and study than we have done to building up from the early years in school a power to use books skillfully and wisely in the acquisition of knowledge. In proportion as we accomplish this in the earlier years, in that proportion shall we diminish the problem that confronts the teacher of the higher grades. . . .

We have an organization for saving and the purchase of thrift stamps and war savings stamps that has proved very efficient. Every room is a separate war-savings society. In many rooms every pupil is a member and but few

pupils in the entire school system are not members. The total receipts up to June 17 were \$11,253.92. The average enrollment in the schools is about 2,100 and this gives us a per capita of \$5.36.

The completion of our high school building last October gives us for the first time sufficient room and adequate facilities for carrying on the work of this important department of our organization. . . .

During the year a new building has been under construction to take the place of Lincoln School burned in October 1916. The building is now approaching completion and will be occupied at the opening of the next school year. It is an admirable example of modern school architecture, with ample auditorium and gymnasium. It is expected that it will be largely used not only for school purposes but as a social center for that part of the city in which it is located. With its completion the unsatisfactory conditions that have existed for the past two years due to lack of room in which to carry on the work of the elementary schools will be a thing of the past.—*Superintendent Elmer C. Sherman, Englewood.*

Early in the season of 1917 the judges of the naturalization courts in Hudson County displayed a keen interest in the Americanization problem and suggested, even in spite of present conditions, that the board of education organize classes for the benefit of those who were desirous of becoming citizens. At the request of the county judges and influenced by the administrative work of the Federal Bureau of Education, it was decided to reopen the classes for foreign born residents of the city, and particular stress was laid upon the work of Americanizing aliens and fitting them for the duties and responsibilities of citizenship. The work of Americanization has been in progress, under the auspices of the board of education, for the past three years. Special citizenship classes have been conducted for the benefit of those who have declared their intention of becoming citizens and who have not yet received their final papers. While splendid results have been attained, yet they are relatively small when we consider the fertile field that needs more intensive cultivation, not only in this city but throughout the country.—*Superintendent A. J. Demarest, Hoboken.*

Funds to the extent of \$2,500 have recently been voted for the establishment of subnormal classes in this district. Statistics have been gathered from all the schools showing the grade and progress of pupils. These statistics seem to indicate that 47 pupils enrolled in the regular classes really belong in the mentally subnormal classes. This number, together with a number of such children who are not on roll in our schools but who in all probability will seek admission to these classes, will warrant the establishment of at least three such classes.

To provide for these classes the board of education contemplates the erection of a building solely for their accommodation. . . .

Supervised physical training has been in effect in several of our schools for the last three years. This being so, we found little difficulty in adjusting ourselves to the provisions of the new physical training law. In the early part of the year, we employed a thoroughly competent physical training supervisor, who immediately set out to organize the work in those schools

which had not had supervised physical training up to that time. The results of his work and that of his subordinates have been very satisfactory. At no time have we encountered any opposition on the part of parents or pupils, either to the physical training itself or to the extended school day necessary to give physical training its lawfully allotted time.—*Superintendent R. L. Saunders, Irvington.*

The following statistics show the enrollment and attendance of pupils and the number of teachers employed during 1917-18:

Total Number of Pupils Enrolled.....	42,454
Average Register	37,585
Average Daily Attendance	33,738
Number of Pupils Enrolled in Primary Department.....	22,575
" " " " " Grammar Department	14,898
" " " " " High School Department	4,074
" " " " " Kindergartens	542
" " " " " Special Classes	261
" " " " " Normal School	104
" " Teachers	1,113
" " Graduates of Grammar Schools	2,424
" " " " High Schools	489
" " " " Normal Schools	49

Eight evening schools of elementary grade were maintained during the winter. Besides the ordinary elementary subjects instruction was offered in cooking and sewing. Special attention was given to the teaching of English and civics, and to patriotic instruction in classes for the foreign born. In these schools 30 nationalities were represented. . . .

In the evening schools 2,770 men and 1,910 women were enrolled. One hundred and fifteen teachers were employed.

Sixteen elementary summer schools were opened in the summer of 1917. In addition to these there was a summer school of high school grade in which instruction in English, Latin, German, algebra and geometry was given. The summer schools enrolled 7,710 and had an average daily attendance of 5,920. Two hundred and forty-five teachers were employed.

The yards and courts of seventeen schools and one of the public parks were maintained as summer playgrounds, with 38 instructors and a director. All were well patronized. . . .

Swimming classes, with a man and a woman instructor, were maintained in Schools 5, 24, 25 and 32, there being five classes in each school. During the school months the classes were held after school hours. During July 80 classes were in operation each week. . . .

There are 11 classes for pupils mentally defective. For these the board employs 11 teachers and a supervisor, who directs the work of the classes and examines pupils reported as subnormal.

Two open air classes have been maintained.

Two classes for deaf pupils, one for the blind, one for over-age, or backward, pupils and one for delinquents have been maintained.

Special attention has been given to the instruction of children suffering from speech defects, and a supervisor of this instruction has been appointed.

The work of the community centers has been continued. Weekly dances are conducted in five schools. The work also includes boys' and girls' clubs and Sunday concerts.

In accordance with the practice of many years the school buildings have been frequently used for other than school purposes. These purposes have been political, patriotic, philanthropic and municipal. . . .

All the war activities mentioned in the last report were continued but they were more comprehensive and involved the participation of many more teachers and pupils. As a matter of fact, all teachers and all pupils have taken part in all these activities in many ways. The school shops, sewing rooms and kitchens, as well as other rooms, improvised for war purposes, were very useful in the war work of the schools. Children enlisted in school garden work and in the Junior Industrial Army. A number of our teachers have entered the service of the Army and Navy. The board of education has granted indefinite leaves to all these, and in the cases of those who have been in the service of the board for a considerable time, has continued to pay them the difference between their regular salaries as teachers and the Army and Navy pay.

Special features which deserve mention here are the trade training detachment authorized by the War Department, and the classes in navigation and marine engineering authorized by the Shipping Board. Arrangements have been made by the board of education with the War Department, in accordance with which over 300 selective service men are receiving instruction in machine shop work, carpenter work, electrical work and forging in the Dickinson High School and in School 32. The Committee on Education and Special Training of the War Department has general charge of the work. The contract which this committee has made with the board of education requires the board to provide quarters and food, as well as shops, materials and instructors for the men. The arrangement thus far made provides for instruction during July and August. The men are quartered in the Dickinson High School, in which also the mess is located. Besides receiving training in the trades, the men are also required to devote sufficient time to military training. The detachment really constitutes a military organization, with its own officers, and is conducted as a military encampment. . . .

In May classes in navigation were formed, under the request and by the authority of the Shipping Board, in the Dickinson High School. These classes will be continued during the year. The aim is to instruct in navigation men who have had experience in sea service, so that they may become officers of the many new ships now in course of construction. These classes are very successful. Under the same Board classes in marine engineering have been established in the same school, which will continue during the entire year. The purpose of these classes is to train men who have had experience as engineers of different kinds so that they may become marine engineers necessary to the operation of the ships now building.

The details of the war activities, which include the making of garments and other articles for the Red Cross and for soldiers and sailors direct, the purchase of Liberty Loan Bonds and of War Savings Stamps, contributions

to the Red Cross, the Y. M. C. A. War Fund, the Knights of Columbus War Fund, the War Camp Recreation Fund, have been made the subject of a special report, and therefore need not be enumerated here.—*Superintendent Henry Snyder, Jersey City.*

The school year just closed has been an unusual one. The schools reflect largely the conditions existing in the world. Principals report that pupils have been interested in school work this year as never before and they have been eager to connect the work of the schools with the needs of the nation. It has been interesting and inspiring to see the response to patriotic appeals made to the school children.

Teaching, in the ordinary sense of the word, has been transformed because it has been possible to vitalize school work through the needs and conditions of communities and nations. Although ordinary school work seems to have been much interrupted by "war work" I am of the opinion that pupils have become more efficient through the various interests that have been brought into the classroom. . . .

The law requiring compulsory physical training has brought about some desirable changes in the high school, although we have had no suitable gymnasium. We were able to rent a hall and in this way comply with the law. The work of the high school has had a marked influence on the bearing of the pupils and no doubt will react still more favorably in another year.—*Superintendent H. Dressel, Kearny.*

The past year has been one of unusual difficulties arising from war conditions. During the whole year there were but few weeks in which we had a full supply of regular teachers. At all other times there were vacancies temporarily filled by substitutes, in some cases for weeks at a time. We lost six men by enlistment or draft. The supplying of vacant places was much harder than in past years as there were few women of the proper type available, and scarcely any men. The success of the principals and teachers was seriously interfered with by these teacher troubles, and my own work of supervision suffered much because so much time had to be given to the finding of new teachers. . . .

We have inaugurated a two-year Latin course in the high school, in addition to the old courses. For a long time it has been my opinion that an exceedingly large part of the time given to the study of Latin in high schools, especially in the first and second years, produces little permanent beneficial result. Our new course is intended to present Latin with the emphasis on its relation to English. Ability readily to translate Latin will not be the test of success. Latin literature will be taken up largely through the medium of translations. Our plan is not yet well defined; we expect to develop it by experience. As we began in the second term I am as yet unable to offer any comment favorable or unfavorable. We hope to secure the following results: fewer failures in Latin; many more pupils who will receive from their study of Latin a direct and practical benefit; more pupils who will carry away with them a real and permanent knowledge of Latin, though they may not possess great skill in translation; greater interest in Latin literature and

a clearer and more comprehensive knowledge of it than pupils are now getting. . . .

We have been wrestling for some years with the problem of retardation. We have had classes for slow pupils, rapidly moving classes, and special teachers for backward pupils, and have used various other methods to lessen retardation. We have given special attention to the matter of promotion to make sure that when a pupil's best interest will be served by promotion he is promoted. Careful records have been kept to determine the success of our efforts. A system of graphs indicates the amount of retardation in each grade of each school each year, a yearly report being made in November at the time of maximum enrollment, the age taken being that at the opening of school in September. After the last November report was received a comparison of the yearly records was made covering the period from September, 1912, to September, 1917, inclusive. The result for the whole system was, in percentage, as follows: 1912, 30 per cent; 1913, 31 per cent; 1914, 28 per cent; 1915, 23 per cent; 1916, 21 per cent; 1917, 15 per cent. That is, our retardation is one half what it formerly was. Our success is peculiarly gratifying since the seaside resort with its constantly shifting population presents the problem of retardation in an aggravated form. Not only is the amount of decrease worthy of remark but also the regularity of it from year to year, pointing as it does to a steadily operating cause which, in my judgment, is our systematic effort.—*Superintendent Christopher Gregory, Long Branch.*

As the population of our country increases its governmental, business and social problems ramify and the need of leaders becomes more and more pronounced. In time of war it becomes emphatic that, more than any other form of government, a democracy needs leadership. It needs people of conviction, who can express themselves positively and convincingly. It needs people of initiative, who can do things.

In addition to its conceded task of imparting knowledge, facts or information, its task of developing appreciation, imagination, sympathy and tolerance, it is peculiarly the task of democracy's high school to develop in its young people the qualities of leadership. It is a wholesome thing for a child to discover that in some one thing he is superior to everyone else. If the child does not discover in high school that he possesses qualities of leadership, there is a strong probability that he never will make that discovery. If he does not learn in high school that he must sometimes be a follower as well as a leader, he will have missed a valuable lesson.

Millville High School has for three years consciously attacked the problem of training leaders. To the opportunities for leadership offered by the eight class organizations, the two athletic organizations, and the school journal, there have been added 11 student clubs. Every student is required to elect membership in one of the clubs. Thus there are open to student competition 21 presidencies and an equal number of vice-presidencies, secretaryships and treasurerships, as well as various offices on the staff of the school magazine, "The Orange and Blue."

Among the high school clubs are the following: Dramatic, Debating, Science, History, Glee Chorus, German (changing to French next fall), Cham-

ber of Commerce, Booster, and two Freshman Literary Societies. There is also a High School Orchestra. . . .

Approximate amount of Liberty Bonds subscribed for by pupils and teachers, \$21,700.

Approximate amount of bonds sold through the influence of pupils, \$17,350.

Number of children of each school enrolled in the Junior Red Cross, 100 per cent.

Approximate number of boys sewing or knitting for the Red Cross, 396; girls, 630.

Amount of Thrift and War Savings Stamps bought by pupils to, but not including, June, \$7,293.16.

Total receipts of the various schools for Junior Red Cross work, \$721.95; total expended, \$417.36; balance on hand, \$304.59.

Number of articles made for the Red Cross, 1,508.

So far as can be ascertained 86 former pupils of Culver School; 80 of the Richard D. Wood School; 39 of the High School; and 3 of Carmel School are in the service of the United States.

Number of children having full charge of home gardens containing 200 square feet, 96; of smaller areas, 1,063.

Subscriptions to the Y. M. C. A., over \$200.

Number of government certificates awarded to Four Minute Speakers on Thrift Stamps, 11.

Number of farms of which a census was taken by boys and tabulated by girls of the high school, approximately 400.

Number of bird boxes in bird box contest, 45. Many of the boxes built were not entered in the contest.

Number of public demonstrations on substitutes in cooking, 4.

Number of boys enrolled in the U. S. Boys' Working Reserve, 6; actually placed on farms, 3.

Number of girls enrolled in the Junior Industrial Army of N. J., 2; actually placed on farms, 2.—*Superintendent Warren Nevin Drum, Millville.*

With the close of the school year in 1917 it was evident that two buildings would be overcrowded the following year. Excessive building costs made it inexpedient to undertake any new construction. Accordingly, after several conferences with the teaching staff, both schools were organized upon the so-called platoon system. Classes from the second to the sixth grade were grouped in pairs and one teacher was assigned to the academic work for each group of two classes. Special teachers gave instruction in four special subjects. With the opening of school in the morning one class in each pair reported to the special teachers while the other class went direct to the classroom. At the middle of the session the classes changed places and the morning routine was repeated. By this plan all the building space was occupied, the classes received the advantage of special teachers and the regular teacher was freed from responsibility for subjects with which she was less familiar.

This was accomplished with no increase of the teaching force. A year's trial of this scheme has proved to the satisfaction of the department that it

represents an economy of space, greater efficiency in both special and regular subjects, and less strain upon the teacher.

Another change during the year was the inauguration of the all-the-year school. Previously summer schools had been maintained for the benefit of pupils who had failed of promotion. The department became convinced that this money could be spent more advantageously by operating during the summer two schools attended by pupils who were likely to remain at home. Experience proves that approximately 95 per cent of the regular pupils will attend such a summer school. The reports of the principals indicate that in three summer sessions those pupils who attend regularly will gain a full year in the six year elementary course. No regular teacher is allowed to work more than eleven months, but she may elect to take a month's vacation at any time which suits her convenience. Some teachers selected a midwinter month for their vacation. Careful observation of the children disclosed no injurious effects upon their health. The playground was under expert supervision and the schedule was so arranged that the session was broken up by play periods. The indications are that the children were actually better off physically than they would have been if left to run the streets. To provide for pupils who wished to make up work in which they had failed a tutoring school was organized in a third building. This was operated by some of the regular teachers of the school under the general direction of the department. A fee was charged sufficient to meet all the expenses of the school. About 150 pupils availed themselves of this opportunity. . . .

The war activities of the Montclair schools were especially prominent.

The Red Cross activities were sewing, knitting, surgical dressings, snipping (now discontinued), oakum, books and games for convalescent soldiers, woodwork, printing, messenger service, salvage, clerical, gardening and food conservation. Each activity has a general chairman, and each auxiliary has a chairman who is responsible to the general chairman.

Effort has been made to coordinate the work of different departments and of different grades. The Junior Red Cross banner was designed by the art department and executed by the sewing and woodworking departments. The books for convalescent soldiers are worked on by several grades. The stories are selected usually by pupils of the eleventh or twelfth grades. The pasting and the printing of the name of the book are done by lower grades. A package of steel needles represents the work of three departments, metal work, woodwork in making the carton, and printing for the label.

The clerical unit of one of the junior high schools, with supervision of the editor, sends out weekly a mimeographed bulletin. This bulletin is sent to each representative and contains instruction for chairmen of units in regard to directions for knitting, sewing, etc., general information in regard to the business of the Junior Red Cross, and notices of meetings of the various committees.

The bulletin, the messenger service, and a permanent headquarters have played an important part in the organization of the Junior Red Cross. Time and energy have been conserved and the interruption of constant telephoning minimized.

The salvage unit has made a fine sum of money for Junior Red Cross by collections of old gold and silver, worn-out overshoes, tires, discarded rubber

of any kind, bottles, tinfoil and lead foil. Salvage campaigns offer excellent opportunities for younger members of the Junior Red Cross, for children are energetic collectors. For the Belgian drive alone over 7,000 garments were collected.

Melting pot week was an interesting activity of the salvage unit of the High School and the Central Junior High School. It was a great success, due in large part to the clever cartoons drawn each day on the blackboards of the study rooms.

At the end of the week the pupils assembled to take stock of what they had gathered. A clever illusion was displayed upon the platform. In the middle of the stage three poles had been lashed together, and suspended from these was a melting pot from which issued a cloud of blue smoke. Beneath the kettle glowed a realistic fire. Its flames were orange streamers kept in motion by an electric fan and illuminated by hidden lights. A small boy kept the flames glowing by pumping vigorously on a foot bellows.

The different rooms brought their collections of silver to the platform, had them weighed and the weight recorded on a blackboard where all could see. Great interest was shown as to which room had collected the most, and when 2,000 grams was written on the board for one room, everyone cheered.

From time to time a pupil arrayed in a leather apron and goggles and equipped with a large ladle added pieces of silverware to the pot and stirred the molten mass.

Several of the rooms had their old silver and gold brought to the platform in a novel manner. One collection was wheeled down the aisle in a wheelbarrow and then carefully shoveled into the scales. Gales of laughter greeted another pupil disguised as a peddler and bearing old silver in a tray hung around his neck. The assay of the silver and gold yielded \$300 for the Junior Red Cross.

In four schools the children from the third to the sixth grades are using knitting machines and doing satisfactory work. Some knit legs and feet of socks, leaving the top and the toe to be finished by hand, and others knit only the legs of the socks. The subnormal class has done some very good work with the knitting machine.

Picking oakum has furnished activity for younger boys and their work has been valuable to the Senior chapter in a great saving of time in making oakum pads.

The printing unit has provided directions for knitting socks and making garments and tags for wool for the Senior chapter. It has printed all stationery, requisition blanks, circulars and posters for the Junior Red Cross.

The woodworking unit made frames for the certificates of membership sent by the American Red Cross to each school auxiliary. They have a contract for packing boxes for the Senior Red Cross and have made tables for the army camps. Wool winders and knitting needles are also made by this unit.

The activities planned for the summer are gardening, food conservation, knitting and sewing. The Junior Red Cross headquarters will be kept open one day each week.

The record of production of surgical dressings is not yet complete but over 43,000 have been made.

From May 1 to 31 the following has been accomplished: knitted articles, including 360 pairs of socks, 726; muslin bandages, 239; front line packets, 375; hospital garments, 59; property bags, 42; oakum picked (boxes), 6; carpet rags (balls), 10; refugee garments, 190; books and games for convalescent soldiers, 269—1,900 articles, exclusive of surgical dressings, packing boxes and tables for army camps. . . .

The success of the Junior Red Cross movement is dependent upon the interest and devotion of the teachers of the community. Through their vision of service the children are saved from exploitation. . . .

Mothercraft classes are already receiving instruction in the proper care of infants. Experience indicates the necessity of such teaching, especially to children of foreign birth. These children carry home enthusiastic accounts of the things they learn about what to do and what not to do for the baby, and the interested mothers come to see and hear for themselves. Real babies are occasionally loaned for demonstration purposes. A spirit of cordial co-operation between the home and the school is thus developed to the manifest advantage of both pupils and teachers.—*Superintendent Don C. Bliss, Montclair.*

There have been many changes incidental to the development of a program of progressive work. We have added to the number of speech correction classes and of classes for the blind and for the mentally defective; have organized classes in draughting for women and classes in factories for employees, and have sent teachers into factories to teach English and civics, and teachers of English to classes of foreigners meeting in neighborhood centers. We have increased the number of alternating schools by three, and the number of social centers, and have encouraged the wider use of school buildings. During the summer a Soldiers' School enrolling 381 was maintained in the Central Commercial and Manual Training High School for the training of men in the mechanical trades. . . .

The tremendous growth of the school system and the increasing complexity of the educational problem make necessary new plans, new practices, and new adjustments in the administration and supervision of the schools. One of these is the establishment of a department of reference and research to meet the demand for efficiency and economy based upon investigation.

The chief function of such a department is to analyze statistics, to show the purpose for which they were gathered, and to furnish charts and graphs to make the information clear and valuable.

Some of the functions of the department are:

To keep information of all kinds in systematic order and to answer all questionnaires and requests for information from any proper and responsible source.

To supervise and check all requisitions for books and supplies, to compare the orders with the books and supplies reported in the inventories, to deny or grant requests only after investigation.

To keep up-to-date inventories of all books and supplies granted to the schools.

To have charge of the professional library of the board of education, in which will be kept a complete set of all textbooks and samples of all supplies

used in the schools, educational reports, college catalogs, government bulletins and other sources of valuable information.

To issue, under the direction of the superintendent of schools, tests in various subjects for the purpose of supplying him with definite data in reference to policies—educational or administrative.

To make surveys and supervise investigations under the direction of the superintendent of schools with such assistance as he may deem proper and advisable.

The work of the department of reference and research may be briefly described as that of relieving the higher school officials of matters relatively less important than the supervisory work they are engaged to do, and of furnishing officials with information at once fresh and reliable and valuable. Further, it provides a better plan than the one previously used for ordering books and supplies. The economy resulting from this alone will prove to be of much value. It makes possible the establishment and development of a useful library in the office of the superintendent of schools, and aids in the testing and measuring of educational results. . . .

At the beginning of the year, in September, 1917, some schools were authorized by the superintendent to organize on the departmental plan in the seventh and eighth grades. The experiment proved successful and met with wide-spread approval, so that it was later authorized in the seventh and eighth grades for all subjects and in the fifth and sixth grades for the special subjects of drawing, music, sewing, as well as physical training. It is confidently believed that the important results will be to accustom elementary pupils to this plan of instruction, to increase the efficiency of the instruction, and to reduce retardation in the high schools. . . .

Every year a number of graduates of the several high schools return for what is called post-graduate work. As a rule it consists in repeating some grade of a subject merely to fill in time. The fact that classes are graduated in February and that very few colleges take students at midyear puts the graduates at a disadvantage. During the last year there were 31 students in the several high schools who took post-graduate work.

Every possible effort should be made to save the time of students and to further their educational interests and progress. A forward movement is to bring educational opportunities to them at as small an expense in effort, time and money as possible. Believing this, Newark now offers to her ambitious youth an opportunity in the form of collegiate training.

The board of education authorized the establishment of the Newark Junior College at the South Side High School, the work to begin September 16, 1918.

The general plan and conditions of the Newark Junior College are:

For admission, evidence of the satisfactory completion of a four year course in an approved high school or preparatory school is required. Those who can not present such records are required to pass examinations or present qualifying certificates for matriculation, conditioned pupils to be admitted on approval of the superintendent of schools.

Students who desire to obtain credit toward a degree in other institutions are required to pass the entrance requirements of the institution in which they wish to matriculate. Advanced credit is secured by examination according to the requirements of the institution giving the credit.

Tuition is free for residents of Newark. Non-resident pupils must pay a fee of \$125 per year. Textbooks are provided free of expense.

Students under the requirements for admission are divided into three groups:

Those who have satisfied college entrance requirements and are working for advanced credit toward a college degree in another institution. These pupils are required to take five major subjects of college grade in accordance with the requirements of the college they expect to enter.

Those who have conditions to meet. These pupils have a program which fits them to satisfy college entrance requirements and to secure advanced credit in one or more college subjects, the same as students of the first group.

Those who are not working for advanced credit in other institutions but who desire training and education in addition to their secondary education.

The complete plan of the Junior College adds two years' work above the high school. This provides a systematic arrangement of worth-while work for the 30 or more post-graduate students who remain in the schools. The course of the first year consists in the main of freshman English, Latin, elementary Greek, intermediate and advanced French, intermediate and advanced Spanish, advanced German, freshman mathematics and physics. The work will be so developed that pupils can be admitted to the third year classes of the best colleges and universities. The Junior College gives an excellent opportunity to many worthy students who cannot afford to go away to a higher institution, and will meet the requirements for admission to medical and other professional schools requiring two years of collegiate training for admission.—*Superintendent David B. Corson, Newark.*

The population of New Brunswick between the ages of 6 and 20, as shown by the United States census of 1910, was 6,296. If the average age group for these years—450—is taken as a basis, the population between the ages of 4 and 20 was 7,196. On the basis of age groups in the school census of 1918 the population of the city at the present time between the ages of 4 and 20 is about 10,000.

This number is, in part, accounted for as follows: enrolled in public schools from the city, 4,587; attending private and parochial schools, 1,467; from city attending county vocational school, 41; between 14 and 16 years of age legally at work (age and schooling certificates), 157; enrolled in evening school 17, 18 and 19), 175; total, 6,427.

In the public day and evening schools there were registered from the children of the city during the school year 1917-18: 13 years old, 333; 14 years old, 317; 15 years old, 196; 16 years old, 142; 17 years old, 100; 18 years old, 59; 19 years old, 49; total, 1,196.

In contrast with the preceding age groups are the following groups, also resident of New Brunswick and registered in the public schools during 1917-18: 6 years old, 459; 7 years old, 481; 8 years old, 452; 9 years old, 458; 10 years old, 457; 11 years old, 384; 12 years old, 404; total, 3,095.

It should be noted that 1,390 children 6, 7 and 8 years of age were enrolled in 1917-18 in contrast with 655 13, 14 and 15 years of age. In other words, the number enrolled in the older groups was 47 per cent of those in the younger groups. According to the recent school census, however, the number

of children in the city 6 years of age is 628. This number should not vary greatly for other age groups from 4 to 20. It is evident, therefore, that a comparatively small proportion of the population of the city 14 to 20 years of age is enrolled in the public schools.

The group over 14 not enrolled in any school is largely employed in the commercial and industrial activities of the city. Continued enrollment for these and many who will in time move forward depends in great measure upon the way in which the work of the public schools is definitely connected and coordinated with the commercial and industrial development of the city.

The census of 1910 (U. S.) showed that there were in New Brunswick 797 illiterates over 10 years of age. Of these, 696 were among the foreign born inhabitants. Only a comparatively small number of these have attended evening school. There is, in all probability, a much larger number of illiterates now, for the city has increased its population since 1910 by at least 11,000 or 12,000. Among these and among the adult non-English-speaking inhabitants there is a very large field of work for the public schools. In 1910 more than 4,600 of the inhabitants of the city had been born in countries of Europe whose language was non-English. This number is undoubtedly much larger now. How many of these are adults and how many are children attending public, private or parochial day schools the data available do not show. Be that as it may, a very large number of this adult population should be considered a part of the school population for which facilities for obtaining a knowledge of English and American civic ideals should be provided. . . .

The industries, the opportunities for employment in this or any other city or community have much to do with the character of the population. In New Brunswick the large foreign population has come mainly in response to the manufacturing industries which so largely predominate. Many different kinds of commodities are produced in the factories. The demand for skilled and unskilled workmen is large and varied. Thirty-two factories employ more than 50 people each, two more than 3,000 each. At the present time there are more than 10,000 male employees in the factories of the city and about half as many female employees. Many of these come from outside communities, it is true, but in addition to employment in the mills there is a very large force employed in the commercial activities of the city. Factory life and factory conditions, however, are largely responsible for varied home life and social conditions, as well as for the cosmopolitan population. The employment of the father, the older members of the family and possibly of the mother in the factory; the hours of employment, the family income, the time for recreation and the way such time is spent, the family and neighborhood ideals—particularly in the segregated sections of the city—these and other factors complicate school problems. With these elements of the social environment the public schools must necessarily reckon if they are, in any satisfactory manner, to meet the needs of the community. . . .

Transfers within the school system among the various buildings numbered only 208, so that greater variation is largely due to families moving in and out of the city. For the last few months, so far as public school enrollment itself shows, the larger number were leaving the city. It is very probable, however, that emergency requirements of the industries here furnish a large

factor in the explanation, for 241 pupils left the high school and upper grades in these months. This rather large change in enrollment affects very materially progress in school. It makes the work of the teacher, particularly in crowded rooms, very difficult. Moreover, because of this condition a well-organized attendance department is very necessary if efficiency in the work of the schools is in any reasonable measure to be maintained.

An accurate record of all children who ought to attend school should be available. This should be checked from time to time in order that it may be thoroughly up to date. A school census always being revised through reports from the various schools, departments of the city government and other agencies will necessarily form the basis for a thorough-going attendance department. Such a census and such a plan of adjustment is provided for New Brunswick and is now being put into operation. It is hoped that with the opening of school next fall it may, under the management of the new attendance office, be fully available for that department.

Already the checking of the records of the recent school census for children 14 to 16 years of age with the legal working papers on file in the central office has shown that 75 children are now at work without age and schooling certificates. A report has been made to the State Department of Labor and that office will undoubtedly see that these boys and girls either are in school next fall or are legally employed. A more complete checking of the various records will probably disclose a greater number of discrepancies, for there are only 157 certificates on file for boys and girls 14 and 15 years of age. . . .

It should be noted that: (1) 61 per cent of the enrollment were absent 10 days or more, (2) 39 per cent less than 10 days, and (3) 34 per cent 20 days or more.

Fifty-two per cent of the pupils of the kindergarten and the first two grades were absent more than 20 days; 18 per cent of the fifth and sixth grade pupils. It is obvious, I think, that such proportions of absences are not at all favorable to satisfactory school work.

Attendance reports show that 2,561 cases of absence were investigated during the past year and that 171 cases were brought before the city recorder. Sixty-nine per cent of the cases of absence investigated and 74 per cent of the cases for the city recorder were in the three buildings which have the lowest percentage of attendance. These buildings had 40 per cent of the total enrollment for 1917-18.

In the districts represented, however, there lived, according to the recent school census, 59 per cent of the parents of the city born in foreign countries. In this there may be some explanation of the failure of the attendance department to keep attendance in these sections up to a reasonable standard. An investigating attendance officer can certainly be of great service in this section of the city.

Cumulative records of attendance and investigations; coordination of the work of the attendance department and that of the school nurse; a more systematic plan of procedure in the juvenile courts will all together, I believe, improve attendance. . . .

In New Brunswick the following facts must be considered in planning a satisfactory school program:

Excellent posture

Insurance policies in health
EXAMPLES OF WHAT THE BOYS AND GIRLS OF NEW BRUNSWICK ARE DOING

1. New Brunswick is very largely an industrial community.
2. A very considerable proportion of its population is non-English-speaking. Only a small proportion of these attend evening school.
3. A majority of the pupils enrolled in the public schools drop out at an early age to go to work; a smaller number remain for the advanced work of the high school. About 60 per cent of the pupils drop out between the fourth and eighth years of school. The great majority of these leave school before they have reached the seventh grade.
4. The school system of the city, as now constituted, does not (a) advance pupils as rapidly as it should to upper years of school, and does not (b) offer for boys and girls leaving school at an early age sufficient opportunity. In other words, if the boys and girls who drop out of school at an early age could have been advanced to the eighth or ninth year of school before leaving, they would not have received adequate educational opportunity in the upper years, for vocational and industrial education is almost lacking.—*Superintendent Ira T. Chapman, New Brunswick.*

In 1908 we began the cultivation of a spirit for a better pupil attendance as a means to school betterment. Its result shows an advance during the decade from 56 to 475 pupils who were neither absent nor tardy. This is a gain of 748.2 per cent. It has been a constant aim to impress upon principals, teachers, pupils and parents that the best teaching and learning are possible attainments only when there is good pupil attendance. The percentage of attendance in 1907 was raised to .926. It was raised to .951 in 1909 but this has fallen off to .922 in 1916 and .921 in 1917. The year 1918, an unusually severe one, furnished 357 pupils who were classed in this list. . . .

We believe that pupils should be trained to self-thinking. Our library system has been organized for this purpose. We have differed in our plan from the conventional arrangement for libraries in schools. We believe that pupils should not only be trained to read, and to read intelligently, but that they should be trained (1) to enjoy reading, and (2) to form this habit of pleasurable reading in the early grades of school life (3) under the guidance of the teacher. We have accordingly organized not only our ordinary school libraries into class libraries, but have also provided a primary class library for grades 1 to 4 in every school. The teacher directly supervises the distribution of books, their reading,—the pupils' report upon their reading, and the discussion of the socialized reports made to her own pupils, as a regular part of the work done in English in our schools. Books are loaned to first grade pupils so that they may have them read to them. Ten years ago the plan of our Primary School Library was put in operation, because the ordinary library is too late in its application to meet pupils' needs, too late in guiding the desires and taste of pupils for reading, too late in forming the valuable basic habit of good taste in the selection of reading, and too late to form the habit of reading with pleasure, and therefore too late in giving its valuable aid in the mental and character development of our pupils. For ten years we have thus been practically using this phase of a silent reading method that is now being so much emphasized in educational circles.—*Superintendent M. F. Husted, North Bergen.*

Although the work in physical training has been going on but a few years its beneficial results are already apparent, especially among the girls. If we succeed in carrying out not only the letter of the law but its spirit also, no other form of school activity will do more for the well-being of the coming men and women than the continued, systematic, daily work in physical training.

We have continued the community evenings devoted to music. These meetings are not intended as school functions but as partnership affairs in which the children furnish the minor part of the program. These meetings were not so numerous as they would have been had it not been for the shortage of coal. Although there were days when the last shovelful of coal was used, we were very fortunate in not being compelled to close the school at any time.—*Superintendent James M. Stevens, Ocean City.*

The dental clinic has now become a well established part of the school system and a very significant result is to note the pride which the pupils take in the frequent use of the toothbrushes. The clinic has reenforced many of the ideas which the pupils have acquired from the textbooks and I am sure the work as a whole, while being of incalculable value to each individual, has resulted in more regular attendance and better attention to school work.

The figures as submitted by the dentist are as follows: appointments kept, 2,586; fillings (amalgam, cement, gutta-percha), 2,777; extractions, 2,226; cleanings, 1,180; treatments, 738; patients completed, 594; new patients, 717; repeaters, 419. . . .

The work in physical training has been conducted along lines suggested in the state monograph, the principal features for the high school boys being setting up exercises, march tactics and games. In addition to this the boys completed an army rifle drill.

In the grades, in addition to the regular work, much attention has been directed to the correction of bad postures.

The enlistment of the boys' athletic director the latter part of the year had its effect upon the outside activities. The boys did excellent work along this line, however, considering the great disadvantage under which they were laboring.

The definite instructions issued by the State Department have had a vitalizing effect upon the physical training work as a whole and are conducive to the attainment of beneficial results. . . .

The following tabulation from the attendance officer's report is interesting, as it represents the reasons assigned as a result of each call by him:

Sickness	2,545	Truants	157
Illness in family	317	Death in family	117
Helping at home	147	Insufficient clothing and shoes..	264
At home—no reason	271	Moving in city	201
Visiting out of city	179	Working	82
Nobody at home	428	Attending parochial schools	82
Moved out of city	137		
Miscellaneous calls	94		

—*Superintendent W. Burton Patrick, Orange.*

The total enrollment of the schools of Passaic for the year closing June 30, 1918, shows a net gain over the previous year of 366. This increase was wholly in the elementary schools since the enrollment in the high school was 2 less than for the previous year. There was in the elementary schools an increase of 368. The increase in the elementary schools is distributed as follows: kindergarten, 49; grades 1 to 3, 102; grades 4 to 6, 129; grades 7 and 8, 80; vocational, 7; subnormal, 1; total, 368.

The percentage of promotions in February of this past year was 87.54 as compared with 88.85 the year before; in June of this year 87.04, as compared with 89.43 the year before. The causes for this slight falling off in the percentage of promotions are not clear. Several hypotheses might be predicated, such as, loss of time due to closing of the schools for lack of fuel, the distractions incident to the war, an unusually large number of new teachers to be broken in, and a good deal of illness among the teachers. It means that we must all, working together, strive to resist more strongly the causes militating against the larger percentage of promotions.

This past year general evening schools for both elementary and high school pupils, as well as for foreign-born residents, were maintained. The general evening schools contained only two elementary classes, enrolling 98, leaving a net enrollment of evening high school students of 711. This is the largest evening high school enrollment we have ever had. It was probably due to the fact that we offered to teach any high school subject if at least 20 applied for such subject. The subjects taught were stenography, typewriting, bookkeeping, Spanish, French, chemistry and mechanical drawing. The attendance kept up well until the Christmas holidays. Then the extreme cold weather and the closing of the schools on account of lack of fuel for the month of January thinned out the classes to a very great extent. . . .

The wheels of our two work-study-play schools have turned very smoothly this past year. The attitude of teachers toward this type of schools has completely changed. Parents are generally well pleased. The per capita cost of these schools for 1917 has been worked out with some care.

The Woody-McCall arithmetic tests were given the last of January. The results showed on the whole that our schools were doing very creditable work. As the seventh and eighth grades throughout the city fell a trifle below the standard median measures were immediately taken to strengthen these grades in the fundamental operations. The value of such a test was shown in the fact that principals and teachers were not aware that our seventh and eighth grades were not as strong as they possibly should have been in the fundamental operations. The test revealed to us, principals and teachers alike, all points of weakness whether of individual schools or of separate classes. It was like the diagnosis of a physician. All were quick to apply the needed remedy. It will be interesting, when the time comes for a similar measurement, to note whether the remedies applied have been effective. Interest in the use of measurements of achievement has grown apace so that in the future they will be used just as liberally as possible. The obstacle in the way of their more frequent use is the lack of clerical assistance.

The five atypical classes in our schools have made decided progress this past year. We have spared no expense in granting to the teachers every needed equipment and facility. In the middle of the year an exhibit of the

handwork of these classes was given in one of the schools of the city by invitation of the Woman's Monday Afternoon Club, who met on the day of the exhibit in the school where the exhibit was to be held, using as their topic the training of such children. The exhibit was a revelation to teachers and laymen alike and greatly increased the interest of the community in such work. One result is something for which some of us have been working for several years, namely, to bring about the segregation of these children in a building by themselves. At the July meeting of the board it was voted to equip a separate building for this purpose and these classes will all be concentrated in September in this building. Possibilities of classification by mental age and by sex, and departmentalization of the work promise greatly enhanced opportunities for these children in their new environment for next year. Behind the school which they will occupy is a fine school garden in which they can work in the spring. This is a long step forward, we feel, in the progress of this particular kind of work in our schools. At the same time the change releases to us a number of classrooms for the relief of part-time classes.—*Superintendent Fred S. Shepherd, Passaic.*

In September new school number 10 was opened at Riverside. This building is a modern fire-proof structure containing 42 classrooms, an auditorium, a gymnasium, four shops, a kitchen, principal's offices, three teacher's rooms, a medical inspector's room, a library and a sewing room. The new school replaces an old building which occupied part of the site on which the present building stands. The building cost \$209,000 and the equipment \$35,000, while \$22,000 was expended for the purchase of adjoining property to enlarge the outdoor playgrounds. The auditorium seats 1,700 people and is equipped with motion picture apparatus. The shops include a printing shop, a wood-working shop and two other shop rooms, one of which will be used as an electrical shop. The sewing room contains 24 sewing tables, 12 sewing machines, mirrors, dressmaking forms, cutting tables and other accessories of a modern dressmaking establishment. The gymnasium is 48x75 feet in area, is fully equipped with apparatus and is provided with shower baths. Two of the classrooms are planned as "open-window" rooms for children with anemic or tubercular tendencies, and one classroom is equipped for mentally defective children. The building accommodates 1,700 children in the regular day school sessions and is admirably adapted to evening classes, public lectures, social center and other adult activities.

To carry out the provisions of the new physical training law the board of education engaged 11 teachers as follows: one supervisor, one assistant supervisor, four instructors for the high school, one instructor for the Normal School, and four instructors in the large grammar schools. . . .

Our second open-window class for children with tubercular tendencies was opened at School Number 10 in February. There are 25 children in this class. An open-air school was also established in a separate building at School 22 in February. A small, one-story, wooden building of the pavilion type was erected. Twenty-four children were assigned to this school. The children for these classes were selected by the medical inspectors and the school nurses. The local Anti-Tuberculosis Society pays the transportation expenses of any children who live too far away to walk to and from school.

The Society also provides milk for one of the classes. A trained nurse employed by the Society visits the classes several times each week and renders valuable aid to the teachers in improving the home conditions of the children. . . .

The schools of the city have taken a very active part in many wartime movements during the year. During July and August a course of lessons on food conservation was conducted at several of the school kitchens. This work was in charge of two of the regular teachers of cooking and classes were conducted in the afternoon and evening. The courses included six lessons as follows: (1) drying of vegetables; (2) salting of vegetables; (3) making of jellies and jams; (4) canning of fruits; (5) canning of vegetables; (6) special topics requested by the class. . . .

Sixty high school boys were placed on farms for the summer of 1917 and 25 boys have already been assigned to farm work for the season of 1918. Three hundred twenty-five boys have reported as workers in the home gardens. Fourteen teachers, eleven men and three women, have been granted leave of absence for some form of war service. Of the men, two are in the navy, four in the army, two in the aviation service and three in the ordnance department. Of the women, one has entered a Red Cross Training School and two have accepted clerical positions in the Government service. . . .

On Tuesday, December 18, all schools in the city were closed by order of the county fuel administrator. The use of the buildings for evening schools, free public lectures, and, with a few exceptions, for public entertainments, was forbidden. Sessions of the day schools were resumed on Monday, January 21, after a loss of 16 school days. The evening classes were not reorganized until late in March.

To assist poor people who could not afford to buy coal for the winter supply in large quantities, and to help others who had been unable to secure an adequate supply of fuel, the public schools were used for several months as centers for coal distribution. The coal was handled by the janitors, and the clerical work was done by the principals and teachers after school hours. \$55,000 worth of coal was distributed in bushel and half-bushel lots.—*Superintendent John R. Wilson, Paterson.*

The normal growth of our city population was more than maintained during the year. In spite of this fact the normal increase in school enrollment was less than half of the average annual increase of the past ten years. Because of the greatly increased cost of living, many pupils from the less affluent homes found it obligatory on them to contribute to the family income and hence sought employment at the earliest possible date of their ability to comply with legal requirements. On the other hand, the demand for labor at phenomenal wages proved a magnet of sufficient power to pull out of school many boys and girls whose home conditions were not such as to demand financial assistance. When peace comes again to our land I fear we are to have an army of American youths who, without a trade and with arrested mental growth, are going to find themselves too seriously crippled to successfully grapple with post bellum conditions of our national life. . . .

American childhood acquired a type of education during the past year that more than compensates for the loss in traditional school education.

Existing conditions have awakened us to the fact that real patriotism involves more than the ready-at-hand claims we have been putting up for it, and more than mere talking about patriotism; it is education, and I am convinced that the pupils of our schools have reached nearer a 100 per cent mark this year in this particular phase of education than they have in all the previous years of their school experience. . . .

I cannot forgo this opportunity of touching on another feature of the year's school activity. I refer to Liberty Bond, War Savings Stamps and Thrift Stamp activities on the part of teachers and pupils as shown in the following summary:

Liberty Bonds subscribed for by pupils.....	\$55,750.00
Liberty Bonds subscribed for by teachers	26,200.00
Liberty Bonds sold to others by pupils	18,140.00
War Savings and Thrift Stamps bought by pupils	22,858.00

Much that is pathetic and that savors of a very unusual kind of self-denial could be made to yield extremely interesting reading were this the place to relate the full meaning of the figures above. This city is featured by having sections in which practically all the pupils were either born in the countries now at war against us, or are the children of parents from those countries. These pupils were as enthusiastic and as responsive in contributing their mite as were those of American parentage in other sections of the city. Though poor in worldly possessions these children have caught the American spirit and are, I believe, the indices of their parents' attitude towards the country of their adoption. . . .

Aside from an outbreak of measles in two sections of the city, health conditions in the schools were exceptionally good. Much of this condition we are disposed to attribute to a pretty rigid adherence to the physical training laws of the State. Contributory to the results we attach much importance to a closer oversight of pupils incident to the employment of nurses. Heretofore we had the occasional service of the nurses employed by the Board of Health. During the past year two nurses gave their entire time to the schools. The results were so beneficial that the nursing corps will be doubled this coming year. . . .

The outlook for the year 1918-19 is quite promising. There will be practically no inexperienced classroom teachers. This fact, together with a 100 per cent increase in our staff of nurses and the employment of six helping, or unassigned, teachers ought to go far toward providing a solution for some of the difficulties encountered, which, we feel, are peculiar to this district.—*Superintendent S. E. Shull, Perth Amboy.*

Two hundred and fifty pupils cultivated war gardens on a 30 acre plot set aside for that purpose by one of the local industries. The value of the listed products was estimated at \$7,000. In addition many home gardens were worked, not under the immediate direction of the schools. The board of education employed a special supervisor to look after the war gardens and, with the assistance of the leader of the State Boys' and Girls' Clubs, the results obtained were exceptionally good. Prizes were awarded at a public meeting and

photographs of the grounds and some of the best products were exhibited at the State Fair at Trenton.—*Superintendent H. J. Neal, Phillipsburg.*

The only matter deserving special mention, perhaps, is our classes for defective children. We have adopted the policy of centralizing these classes in one school near the center of the city, the whole building being given up to them. This gives us about 90 children with six teachers and enables us to work out some classification of the children and some departmentalizing of the work. The boys who are difficult are segregated in one class, which makes possible much greater freedom of treatment. The older girls are put into one class and assigned to a teacher who teaches them cooking, sewing and washing, with the purpose of giving them some preparation for general housework, which many of them will undertake when they leave school. Much use is made of handwork; a teacher is put in charge of the carpenter shop and the various divisions of boys are sent in to her for periods of woodworking.

Other teachers in the school have classes of children arranged according to their mental advancement, so that each class is fairly homogeneous. Pupils are assigned to this school, with the approval of the medical examiner, from a list of the pupils who have been tested by the Binet test and found markedly defective. All pupils in the school system who are three years below their normal grade are tested unless their retardation is plainly due to some other cause than mental deficiency, and the most deficient are assigned to this school.

The course of study in the school is absolutely flexible, the aim being simply to teach each child what he needs to know and is able to learn. Careful attention is given to physical defects and the body development of each child, pupils being taken to the hospital clinic when necessary for medical treatment or operations, to remove, as far as practicable, any physical handicap.

This concentration is occasionally a hardship to some child because of the distance it makes it necessary for him to walk; but we have found it to permit much more satisfactory work with the children.—*Superintendent Henry M. Maxson, Plainfield.*

During the year an especial effort has been made to increase the standard in spelling and penmanship. Standard tests were given at the beginning of the year and from that point the teachers began to put forth extra effort to raise the standard. I am pleased to report that later tests at the close of the year show our pupils to be above the requirements of the so-called standard tests. . . .

During the year the pupils of our schools organized 31 thrift clubs with a membership of 1,098 pupils. Up to June 28, 1918, they report invested in Thrift Stamps, \$7,745.10—a per capita investment based on actual membership of a little over \$7; based on school enrollment, \$4. If this movement were not for such a worthy cause, I would still heartily endorse it because of its effect on the pupils. There is no question of the beneficial effect of the habits formed by the pupils through the savings they have made this year; and unquestionably its influence will be manifested in later life. . . .

The music in our schools has shown considerable improvement during the past year, due largely to the splendid spirit of song that has been engendered

throughout the school system. There has been a splendid enthusiasm that seemed to be contagious and that has worked its way into every school. Every effort has been put forth to develop a live interest and enthusiasm in singing, as well as a love for vocal and instrumental music.

In the grammar schools the plan of having competitive singing between classes of the same grade was put into operation (we believe for the first time in any school system in the country), and the response was instantaneous and lively. The corresponding grades from each of the schools were brought together in the high school auditorium at 3:15 each Wednesday and sang in competition, led by their respective teachers. Also solo voices were selected from each competing class whose work added to or detracted from the standing of the class. Judges were appointed by the principals, one from each school, and others from outside the school. Printed forms were provided to simplify the marking of credits, and the classes were given credits on the following points: attention to leader, precision of attack, promptness of release, tone quality, knowledge of the song (correct phrasing), and clearness of enunciation. The direct result of such work was choral excellence equal to the concert performances of adult choruses; bringing to the attention of the public solo voices and singing ability unsuspected outside the circle of the family, or school, and an enthusiasm for this subject which promises for the coming year some splendid performances.—*Superintendent W. F. Little, Rahway.*

We have used the war needs to vitalize and motivate the work at every turn. Patriotism has been greatly intensified by instruction in community civics, current history, junior four minute contests (grades 5-12), by the sale of Thrift Stamps and Liberty Bonds, by Red Cross drives, and by modifications in our courses of study in music, drawing, sewing, cooking and manual training. . . .

Evening classes have been successfully conducted by the commercial department for adults of the town, in order to help meet the local demands for efficient office help. These classes are being maintained during the summer. All of this year's graduates from the commercial department were employed at DuPont's or by local manufacturers before the close of school. . . .

Regular instruction in physical training has been given in all grades throughout the year. The board furnished regular instruction to the teachers by providing Saturday classes. A field day at the close of school gave to the town a practical demonstration of the course, and insures cordial cooperation next year from pupils, parents and board of education. . . .

Standard tests have been used to good advantage in spelling, arithmetic and penmanship.—*Superintendent W. B. Davis, Salem.*

A pupil of our subnormal class, over 14 but not educationally qualified for an age and schooling certificate, was given a position during the summer at one of the munition plants driving a team of horses at \$3 an eight hour day. We had much trouble to get him to return to school; in fact, we had to request the officials of the plant not to employ him. Wages such as these are exorbitant. They draw the pupils out of the schools and in time they invite disaster to both the boy and the school.

We surely need immediately, if we are going to permit so many of our youths to leave the day school, a compulsory system of continuation schools.
—*Superintendent O. O. Barr, South Amboy.*

During the year the citizens, by referendum vote, registered their will that the grade teachers should receive an increase in salary and thus made it possible for the board to put into effect in September, 1918, the schedule which was adopted a year earlier and made ineffective by the refusal of the city commissioners to grant the necessary funds. By this schedule the maximum salary for grade teachers is increased from \$850 to \$1,000. Special increments for advanced study and for teaching subnormal pupils are still allowed in excess of this amount. The board has also granted a bonus of \$50 to all elementary teachers for the year 1918-19. The junior school teachers have been classified with the high school teachers and the maximum in the several classes has been increased as follows: class A, \$2,500 to \$2,750; class B, \$1,800 to \$2,250; class C, \$1,500 to \$2,000; class D, \$1,200 to \$1,650; class E, \$1,000 to \$1,350. A new schedule has been adopted for women principals, as follows: Class A, 10 rooms or more, maximum, \$2,000; class B, 10 or more rooms, not including seventh and eighth grade classes, maximum, \$1,800; class C, four and less than 10 classrooms, maximum, \$1,500; class D, fewer than four classrooms, \$100 in excess of the salary to which the principal would be entitled as a teacher. Men principals and men supervisors have been classified with class A of high school teachers. Women supervisors have been classified with class A of women principals, and assistant supervisors with class C of women principals.

The various war activities have furnished material or motivation for all subjects. A separate report in reply to a questionnaire has shown the amount of this work in several particulars. March 1 Miss Jean P. Case, supervisor of domestic science and arts, was appointed chairman of activities for the Junior Red Cross work in the schools of Trenton and vicinity. In Trenton alone since that time over \$2,500 has been spent for material, all purchased by the cash contributed to the Junior Red Cross by the schools, the board of education supplying only "the tools of work." During this period 9,896 articles were made for the Red Cross. Prior to this time the work was much retarded by lack of materials. Even the kindergarten children have contributed their mite by giving their strips of spool knitting to be sewed into class squares. These kindergarten class squares from the entire city were combined to make a wool afghan for the soldiers.

In the manual training department, under the general direction of the supervisor, Mr. Ward, every opportunity has been grasped to render service in connection with the war needs of the city. Our pupils have made and donated to individual pupils and to the Junior Red Cross over 1,200 pairs of wooden knitting needles and 250 steel knitting needles. Pupils of Junior School Number One made from old box material 20 regulation packing boxes, one bulletin board, and one chest for the local Red Cross chapter; a bulletin board for the Food Conservation Committee; 10 game tables for the Y. M. C. A. at Camp Dix; and five large library tables, which were sent to the Red Cross House for

Convalescents at Mineola. This work was done in addition to the construction of a large amount of furniture and apparatus for the schools.

Among the projects for the schools one may be mentioned as being of special interest. The students at Junior School Number Two rewired the entire building and installed a new system of classroom signal bells. The classrooms in this building which are used by high school pupils were connected with the main high school clock signal system. This work, which was estimated to cost about \$200, was done by our boys under the direction of their manual training instructor, at a cost of less than \$50 for material.

In cooperation with City Commissioner Burk, and City Forester Burris, Mr. Ward conducted a bird-house building contest, open to all boys of grades five, six and seven. Over 30 prizes were offered and more than 1,200 houses were built, some of them unique and very attractive in design. An exhibit of the houses was arranged in a large vacant storeroom in the city, and attracted a great deal of attention. The whole project was designed to awaken interest in the preservation of trees, and to provide for the birds, the natural enemies of the insects which destroy the trees. . . .

The state of war has given impetus to the school garden movement. The work is being carried on more intensively as well as extensively. Fifteen school gardens are being cultivated, divided into 670 individual plots, ranging from 113 square feet to 220 square feet. In five of these gardens there are demonstration gardens of 100 square feet, which were planted by the county demonstrator. Four other schools have demonstration gardens. The board of education appropriated \$100 for ploughing and fertilizer, but the children provided much of the fertilizer as well as the seeds, and the money thus saved is being expended for tools, spraying material, and lime. Nineteen hundred and fifty-two pupils are enrolled in the Home Gardens Division of the Junior Industrial Army of New Jersey. To encourage the children to keep the garden interest until the close of the season a badge was devised of blue ribbon with five stars; the badge to be given in the spring; the stars to be given in the fall, at the time of successful completion of the garden work. The stars are given as follows: red, general cleanliness and cultivation; blue, replanting or transplanting; green, gathering seeds to be tested in school in the spring; silver, fall clearing and preparation for spring; gold, budget showing expense account. Each child must show a budget every time the visiting teacher calls at his garden. The child is checked at this time upon the five points of merit. In April from two to six Normal School students were assigned to each of our schools to give demonstration lessons in testing seeds. Thirty Normal School students volunteered their services to go into our gardens after school and aid in the soil preparation, the staking out of individual plots, and planting. The cooperation on the part of the Normal School and of individual students has been most helpful, and is heartily appreciated. Fifteen teachers from our corps were assigned to duty for eight weeks during the summer to supervise the home and school gardens, under the direction of Miss Ruth Scott. During the school term these teachers rendered much voluntary gratuitous service out of school hours to supplement the work done during the nature study period. The results thus far are most gratifying and the pupils have been enthusiastic from the first. All members of the School Garden Division of the Junior Industrial Army of New Jer-

sey are also registered as members of the United States School Garden Army and have received service bars provided by the government.

Obviously the thought of the War must motivate all the work in the fundamental subjects. The children of one-fourth grade asked to study the question "What will a War Thrift Stamp buy for a soldier?" and made an enthusiastic study of the subject, writing letters to various bureaus where information might be obtained, and pursuing their theme in the subjects of spelling, English, arithmetic and geography. In the first and second grades the children practiced reading and oral English from the conservation posters. . . .

"In keeping with the spirit of the times," writes Miss Catharine M. Zisgen, supervisor of music, "the music department has conducted a series of patriotic mass meetings and 'community sings,' in the various school auditoriums. The music department has also contributed to many local patriotic demonstrations. . . . Orchestras have been organized in eighteen schools. . . . Between 200 and 250 pupils have been devoting at least one hour a week to rehearsals, which have taken place in most cases after school hours. These young performers have played at assembly exercises and all special occasions and have given programs in schools where there are as yet no orchestras organized. Very gratifying results have been attained. However, it is to be regretted that more of our boys and girls have not the opportunity to study wood wind instruments. . . . Most of our instrumentation consists of first and second violin, first and second cornet, piano and drum.

"A comparatively new phase of music education has been most successfully carried on in the elementary, junior and high schools during the year by means of a circulating library of phonograph records. This library includes 30 collections, each collection containing about a dozen selections, and for each collection the supervisor prepared a booklet giving full information and instructions concerning the records to be used. It has been our aim to have the students hear the very best music by the world's artists. In the higher grades the pupils, through the medium of the phonograph, studied the larger forms of vocal and instrumental music—the art song, the aria, overture, symphony, oratorio and opera. Considerable attention has been given to the present day artists who have attained prominence in the world of music, such as Galli-Curci, Heifetz and Elman and such organizations as the Boston Symphony and the Philadelphia Orchestras. In connection with the study of these performers illustrations and anecdotes were used, so that the pupils received a broader knowledge of musicians and a more intelligent comprehension of the subject of music. Available material has been taken from the current magazines so that our boys and girls have learned not only the fundamental principles of music, but are able to talk intelligently about musicians of the hour and great composers of the past. The circulating library of phonograph records was organized and is being maintained through contributions from 30 schools. Nearly every school owns a phonograph." . . .

Five special teachers of physical training were assigned to groups of elementary schools and in this way grades five to eight were given additional assistance and better and more comprehensive physical training work has resulted. Three special teachers have had charge of the work in the two junior schools, while in the high school a program of five and ten minute

physical drills was conducted by members of the faculty and student leaders under the direction of the supervisor of physical training. The work in the high school is entirely inadequate. There is such a lack of proper facilities that it was with great difficulty that the law was complied with. This situation was quickly felt and plans were immediately drawn for a new building which would include two properly equipped gymnasiums with dressing rooms and baths adequate for all physical training purposes. It is hoped that this building will be erected in the near future. Inter-class and intergroup contests have flourished more than ever before. The group contest idea has been still further developed so that now all children in the elementary and junior schools are rated in posture, reliability and physical efficiency in accordance with a set of standard tests. While the regular physical training work has been carried on in much the usual way, a comparison of the posture tests given this year in grades three to eight with those a year ago show conclusively the good results of the increased emphasis given to physical training. The results follow:

Grade	End of year 1916-17	End of year 1917-18
3	73.8	79.4
4	73	78.9
5	70	76.4
6	73.4	85
7	70.3	83.7
8	69.7	87.8
	<hr/>	<hr/>
Total average	71.7	81.8

A committee from the board of education was appointed to examine and report upon the standard tests now being used. I quote from the report of this committee addressed to the board on June 4: "The committee finds that the use of these standard tests has interested both pupils and teachers, and that they are of direct benefit to both; to the pupils, as they are able to compare their own work with the standard for their age and grade, as well as with the average of their class or school; to the teachers, as it gives them an accurate and impartial grading of their pupils and a fixed standard of results to be attained; to the school principals, enabling them to measure the efficiency of their teachers and the rate of progress in their classes, as well as to determine how the classroom work may be best apportioned to fit the needs of particular classes or groups of pupils; to the supervisory officers, as an indicator of the strong and weak points in the school system." . . .

During the spring Dr. J. M. McCallie, principal of the Franklin School and supervisor of special classes, gave a 30 hour course in Educational Measurements, under the auspices of New York University, which was pursued by about 20 Trenton teachers. The teachers were also very fortunate in having a course in Problems of Supervision in Elementary Schools, under the instruction of Professor Frank McMurry and Miss Grace Day, of Teachers College, Columbia University. Nearly 100 teachers took this course. Professor Thorndike, of Columbia, has been engaged to give a course in Trenton in 1918-19 in Educational Measurements.—*Superintendent Ebenezer Mackey, Trenton.*

In accordance with the suggestion from the State Department the general school day was lengthened to five and one-half hours. The school day now begins at 8.45 A. M. and closes at 3.30 P. M., allowing for an intermission of an hour and a quarter at noon time. The length of day in the commercial department of the high school was lengthened to six hours. The day in this department closes at 4 P. M. . . .

All the schools were very active in war work throughout the year. The interest manifested by the pupils was due in large measure to the great activity of the entire faculty. While this interfered with the routine work to some extent, still, under the existing conditions, it was most commendable, and had in it the great educational value of patriotism and "thrift." In the sale of thrift stamps the schools of West Hoboken made the splendid record of \$25,586.41.—*Superintendent Arthur O. Smith, West Hoboken.*

STATE BOARD OF EXAMINERS

The examinations provided by law were held in November and April as in past years. The State Board of Examiners has, during the year, carefully revised the Rules and Regulations concerning Teachers' Certificates. The result of this revision was submitted to and approved by the State Board of Education and the rules as amended are published in the "Rules and Regulations concerning Teachers' Certificates, Edition 9." A copy of these rules may be secured by addressing the Department of Public Instruction.

Attention should be called to the minor changes that have been made in the requirements for the elementary certificate. Music has been added to the list of required subjects for the permanent elementary certificate. Early European history prior to 1700 and elementary economics have been added to the elective subjects, and Spanish after July 1, 1919. After July 1, 1919, German will no longer be an elective subject.

Attention should again be called to the rule regarding summer school attendance. No teacher can be granted the limited elementary certificate unless he has attended two sessions of a New Jersey State summer school or some other summer school approved by the State Board of Examiners.

To meet the conditions that have arisen because of war necessities taking from the teaching force many of the regular teachers, the State Board of Examiners adopted the following regulations, and have been issuing what will be known as "War Emergency Certificates."

In order to meet the emergency conditions on account of the war the

State Board of Examiners may grant temporary licenses for the employment as a teacher to any person who ever held a teacher's certificate in this State or any other State, with the understanding that such a person may qualify for the certificate necessary to do the work for which he has been engaged. He may be employed and draw salary during the duration of the war and for as long a time after the close of the war as may, in the judgment of the State Board of Examiners, approved by the State Board of Education, be necessary to readjust the employment of teachers to conform to the established rules and regulations concerning teachers' certificates as laid down by the State Board of Examiners.

This temporary license shall have the same force and effect as the original certificate.

In order to meet the emergency conditions brought about on account of the war, the State Board of Examiners will grant temporary licenses for the employment of teachers in shopwork, mechanical drawing, printing and elementary agriculture, to any person who in the judgment of the city superintendent or county superintendent gives evidence of being able to fill the position in a satisfactory manner, said temporary licenses to continue in force through the duration of the war with the understanding that the applicant shall begin immediately to prepare himself to qualify for the regular certificate required for the work which he is to do.

In order to meet the war emergency conditions the State Board of Examiners will permit high school graduates who have not yet reached the age of 18, but who will be 18 in September, 1918, at the time of beginning work as teachers, to enter summer school and receive credit for courses they may take therein.

During the war and for so long thereafter as in the judgment of the State Board of Examiners it may be necessary, a candidate may meet the requirements under "b" (Rule 60) by proof that he has successfully pursued at least one nine-week approved agricultural course in an agricultural college, or by passing an examination in theory and practice of agriculture.

The table of statistics which follows shows a considerable increase over last year in the number of certificates issued. This undoubtedly is the result of the withdrawal of many teachers because of the war.

TEACHERS' CERTIFICATES GRANTED DURING 1917-18

STATE CERTIFICATES	Men	Women	Total
Second Grade State (renewals).....	5	9	14
Third Grade State (renewals).....	13	51	64
Special State (renewals)		8	8
Permanent Supervisors	15	4	19
Limited Supervisors	26	10	36
Limited Secondary			
Incomplete	42	62	104
By examination	6	30	36
By endorsement	28	115	143
By renewal	29	81	110
Permanent Secondary	60	99	159
Limited Elementary			
By examination	13	152	165
By renewal	28	541	569

Permanent Elementary			
By examination	22	274	296
By endorsement	19	271	290
Two Year Endorsements.....	5	48	53
Normal Life	2	40	42
Normal Life (granted by Normal Schools).....	38	964	1002
Limited Special State			
By examination	39	155	194
By endorsement	32	97	129
By renewal	71	212	283
Permanent Special State	53	145	198
Vocational (Limited)			
By examination		1	1
By endorsement	13	11	24
By renewal	5	8	13
Permanent Vocational	5	3	8
Vocational Supervisors .....	..	..	..

SUMMARY OF STATE CERTIFICATES

Limited	204	681	885
Renewals	151	910	1061
Permanent	214	1800	2014
Total	569	3391	3960

COUNTY CERTIFICATES—RENEWALS

First Grade County	22	103	125
Second Grade County	2	68	70
Third Grade County		1	1
Special County	10	27	37
Total			233

TEMPORARY LICENSES

All kinds	1945
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GENERAL SUMMARY

State Certificates granted and renewed.....	3960
County Certificates renewed	233
Temporary Licenses granted	1945
Total	6138

BUREAU OF ACADEMIC CREDENTIALS

Mr. T. D. Sensor, Chief of the Bureau of Academic Credentials, makes the following report in regard to that Bureau:

In reporting the activities of the Bureau of Credentials for the year ending June 30, 1918, it is well again to call attention to the rules whereby an applicant for academic credit who has not attended a regular four year high school may, by means of examinations, offered twice a year, remove this difficulty. The circular issued by the Bureau fully explains the way in which this can be done and states the credit that can be given to each individual subject.

In arranging the courses of study they desire to take to establish the equivalency of four years of high school, applicants should, if possible, consult high school principals in order that they may, as far as practicable, follow the outlines of courses laid down in the regular high school, so that the equivalency which they earn in examinations will represent a regular high school course. Full particulars regarding the courses in approved high schools can be found in the high school bulletin prepared by the Assistant Commis-

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	1911	1912	1913	1914	1915	1916	1917	1918	Total
Medical	306	132	246	194	195	222	143	130	2605
Law	148	158	177	172	137	129	166	108	1774
Dental	26	59	44	94	90	154	217	94	1032
Pharmacy	8	....	....	1	5	5	3	10	58
Chiropodist	11	10	15	20	15	3	7	14	115
Optometry .....	....	....	....	....	6	6	10	3	25
C. P. A. .....	....	....	....	....	3	8	10	9	30
Nurses .....	....	....	....	....	....	4	4	9	17
Miscellaneous .....	....	....	....	....	....	....	10	10	20

SUMMARY OF STATISTICS

For the School Year Beginning July 1, 1917, and Ending June 30, 1918

RECEIPTS	1917-18			Increase or decrease compared with 1916-17
REVENUE RECEIPTS				
APPROPRIATED FROM STATE TREASURY.*				
Expenses State Board of Education	\$2,900 00			\$300 00 I
State Normal School at Glassboro	300,000 00			300,000 00 I
Expenses State Board of Examiners	12,000 00			2,000 00 I
Manual Training, State Aid	250,000 00			20,854 41 D
Vocational Schools	40,000 00			
Teacher Training and Agricultural Supervision	13,000 00			12,200 00 I
Free School Libraries, State Aid	7,000 00			760 00 I
Teachers' Institutes	2,000 00			
Teachers' Libraries, State Aid	300 00			150 00 I
School Fund Expenses	3,000 00			1,218 43 I
Teachers' Retirement Fund Expenses	12,900 00			904 70 I
Reduction of State School Tax	100,000 00			
	\$743,100 00			†296,678 72 I
Manual Training State Aid, excess receipts reported by County Superintendents	\$2,119 35			2,119 35 I
Overpaid by Clerk in Morris County	1 00			1 00 I
	\$2,120 35			2,120 35 I
RECEIVED FROM FEDERAL GOVERNMENT.				
Teacher Training	\$13,842 94			13,842 94 I
Trades and Industries	22,547 95			22,547 95 I
Agriculture	6,382 69			6,382 69 I
	\$42,773 58			42,773 58 I
APPROPRIATED FROM STATE RAILROAD TAX.*				
Salary of Commissioner of Education	\$10,000 00			
Salary of Assistant Commissioners	18,000 00			
Salary of Inspector of Accounts	2,800 00			300 00 I
Salary of Inspector of Buildings	\$2,800 00			\$300 00 I
Clerical Services	23,500 00			1,830 00 I
Blanks and Stationery	19,000 00			3,000 00 I
Incidental expenses	12,000 00			
Education Bulletin	1,300 00			600 00 D
Legislative Manuals	2,500 00			
Physical Training	12,000 00			2,000 00 I
County Superintendents' Salaries	63,000 00			25 00 I
Evening Schools for Foreign-born Residents	12,000 00			7,727 56 I

*November 1, 1917, to June 30, 1918 (8 months).
†In 1916-17 actual expenditures from State appropriations were used, as the State School and State fiscal year were not the same.

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SUMMARY OF STATISTICS—Continued

For the School Year Beginning July 1, 1917, and Ending June 30, 1918

RECEIPTS (Continued)	1917-18			Increase or decrease compared with 1916-17
Summer Courses Agriculture—				
Home Economics	\$14,000 00			
Vocational Schools, State Aid....	75,048 81			\$35,281 19 D
Pensions of Teachers (8 months —Nov. 1, 1917, to June 30, 1918)	155,909 80			60,971 41 D
State Normal School at Newark.				
Maintenance	109,000 00			1,000 00 D
Repairs and insurance	4,000 00			1,500 00 I
Practice teaching	14,000 00			250 00 I
State Normal School at Trenton.				
Maintenance	103,000 00			8,000 00 I
Repairs and insurance	17,000 00			5,000 00 I
Practice teaching	10,000 00			
Other expenditures, new build- ings, etc.	2,300 00			2,300 00 I
State Normal School at Mont- clair.				
Maintenance	72,825 00			8,825 00 I
Repairs and insurance	10,000 00			4,000 00 I
Practice teaching	15,000 00			2,500 00 I
Other expenditures, new build- ings, etc.				2,000 00 D
New Jersey School for the Deaf.				
Maintenance	67,000 00			2,000 00 I
Repairs and insurance	6,700 00			33,300 00 D
Industrial School for Colored Youth—Bordentown.				
Maintenance	40,000 00			3,000 00 I
Repairs, insurance, etc.	1,500 00			500 00 I
New buildings, etc., improve- ments	34,500 00			18,500 00 D
Received from tuition	8,148 02			8,148 02 I
	\$938,831 63			90,447 02 D
TOTAL STATE APPROPRIATION.....		\$1,681,931 63		206,231 70 I
State School Fund		250,000 00		
State School Tax		7,314,863 53		
Error in Hunterdon County report.		160 01		309,151 17 I
Railroad tax (received by coun- ties)		2,977,524 32		21,203 25 D
FROM DISTRICT TAXES (school Year).				
Current Expenses	\$10,481,449 47			1,320,320 58 I
Manual Training	466,883 76			60,366 53 I
Vocational Schools	142,807 93			33,881 44 I
School Libraries	17,770 05			1,518 82 I
Evening Schools—Foreign-born residents	4,259 12			736 49 D
Redemption of bonds	648,378 48			48,501 74 I
Interest on bonds	2,214,046 71			12,896 18 I
From district tax for notes au- thorized by vote of district...	74,041 22			20,626 21 I
From district tax for interest on notes authorized by vote of district	12,371 06			4,147 60 I
From district tax for sinking fund	543,152 72			52,320 32 D
Purchase of land	48,550 34			23,939 96 D
Building, enlarging, altering, re- pairing, leasing, furnishing, equipping school buildings ...	1,193,461 16			84,239 40 I
Outhouses and toilets	6,921 09			1,862 63 I
		15,854,093 11		1,511,364 36 I

SUMMARY OF STATISTICS—Continued

For the School Year Beginning July 1, 1917, and ending June 30, 1918

RECEIPTS (Continued)	1917-18			Increase or decrease compared with 1916-17
OTHER SOURCES OF RECEIPTS.				
Manual Training	\$15,200 14	.....	.....	\$2,359 55 D
Library Purposes	4,854 01	.....	.....	1,632 33 D
Tuition Fees	*485,580 59	.....	.....	30,183 27 I
Interest on Deposits	109,578 32	.....	.....	33,320 43 D
Sale of school books.....	3,338 54	.....	.....	1,297 05 D
Defacement of property	2,181 53	.....	.....	554.09 D
Return premiums—fire insurance	2,529 35	.....	.....	1,958 54 D
Vocational Schools	\$40,287 04	.....	.....	\$38,562 99 I
Accrued interest on bonds.....	89,120 35	.....	.....	502 20 I
Evening schools for foreign-born residents .....	.....	.....	.....	413 66 D
All other sources	168,032 21	.....	.....	89,779 47 I
		\$920,702 08	.....	117,492 28 I
MISCELLANEOUS.				
Interest on surplus revenue....	.....	28,159 05	.....	18 79 D
Appropriated by counties for ex- penses of county superintend- ents .....	.....	8,681 14	.....	1,375 82 I
Apportioned by counties for sal- aries of county superintendents' clerks .....	.....	15,344 00	.....	2,539 00 I
Subscriptions for teachers' libra- ries .....	.....	100 00	.....	50 00 D
TOTAL REVENUE RECEIPTS (during year). .....	.....	.....	\$29,096,452 80	\$2,171,776 22 I
NON-REVENUE RECEIPTS				
Sale of bonds.				
Building, enlarging, remodel- ling, furnishing, equipping school buildings	\$2,615,109 52	.....	.....	1,303,755 02 D
Purchase of land	316,970 74	.....	.....	462,321 42 D
		\$2,932,080 26	.....	1,766,076 44 D
Sale of buildings .....	.....	\$11,037 60	.....	3,744 53 I
Sale of furniture, etc. ....	.....	1,748 11	.....	271 23 D
Sale of land .....	.....	2,110 00	.....	1,935 00 I
Fire insurance .....	.....	8,750 65	.....	129,152 27 D
Other non-revenue receipts.....	.....	87,258 54	.....	28,171 01 I
TOTAL NON-REVENUE RECEIPTS (during year) .....	.....	.....	\$3,042,985 16	\$1,861,649 40 D
RE-APPORTIONED BALANCE .....	.....	.....	460 00	770 00 D
GRAND TOTAL RECEIPTS (during year) .....	.....	.....	32,139,897 96	309,356 82 I
BALANCE ON HAND (beginning of year) .....	.....	.....	6,602,346 85	148,004 29 I
GRAND TOTAL RECEIPTS DURING YEAR AND BALANCE ON HAND AT BEGINNING OF YEAR .....	.....	.....	\$38,742,244 81	\$457,361 11 I
DISBURSEMENTS				
ADMINISTRATIVE EXPENSES—STATE† STATE BOARD OF EDUCATION, EX- PENSES.	\$1,775 71	.....	.....	\$824 29 D
STATE NORMAL SCHOOL AT GLASS- BORO	16,110 28	.....	.....	16,110 28 I

*Tuition money is a duplication of receipts.
†November 1, 1917, to June 30, 1918 (8 months).

SUMMARY OF STATISTICS—*Continued*

For the School Year Beginning July 1, 1917, and ending June 30, 1918

DISBURSEMENTS (Continued)	1917-18			Increase or decrease compared with 1916-17
DEPARTMENT OF PUBLIC INSTRUCTION.				
Salary, Commissioner of Education	\$6,666 67	.....	.....	\$3,333 33 D
Salary, Assistant Commissioners	12,000 00	.....	.....	6,000 00 D
Salary, Inspector of Accounts	1,866 67	.....	.....	633 33 D
Salary, Inspector of Buildings	1,866 67	.....	.....	633 33 D
Clerical Services	15,683 62	.....	.....	5,986 38 D
Blanks and Stationery	19,000 00	.....	.....	3,000 00 I
Incidental expenses	6,589 02	.....	.....	5,410 98 D
Education Bulletin	825 25	.....	.....	1,074 75 D
Physical Training	3,459 94	.....	.....	6,540 06 D
Legislative Manuals	2,500 00	.....	.....	.....
Teacher Training and Agricultural Supervision	2,347 30	.....	.....	1,547 30 I
STATE BOARD OF EXAMINERS, Expenses	6,791 52	.....	.....	3,208 48 D
SUMMER SCHOOLS—Agriculture, Home Economics	257 65	.....	.....	13,742 35 D
VOCATIONAL SCHOOLS†	40,000 00	.....	.....	.....
TEACHERS' INSTITUTES	685 52	.....	.....	1,314 48 D
COUNTY SUPERINTENDENTS.				
Salaries—paid by State	42,000 00	.....	.....	20,975 00 D
Clerical services—paid by counties	15,344 00	.....	.....	2,539 00 I
Expenses—paid by counties	8,681 14	.....	.....	1,375 82 I
School Fund Expenses	2,124 29	.....	.....	342 72 I
Teachers' Retirement Fund Expenses	8,412 05	.....	.....	3,583 25 D
Teachers' Pensions	155,909 80	.....	.....	60,971 41 D
EXPENDED FROM FEDERAL GOVERNMENT FUNDS.				
Teacher Training	\$2,376 21	.....	.....	\$2,376 21 I
Trades and Industries	18,531 73	.....	.....	18,531 73 I
Agriculture	6,296 18	.....	.....	6,296 18 I
TOTAL EXPENDITURES OF STATE ADMINISTRATION .....	.....	.....	\$398,101 22	82,112 18 D
STATE EDUCATIONAL INSTITUTIONS.*				
State Normal School at Trenton.				
Maintenance	84,184 04	.....	.....	10,815 96 D
Repairs and insurance	16,817 97	.....	.....	4,817 97 I
Practice teaching	9,997 55	.....	.....	2 45 D
Other expenses, new buildings, etc.	2,300 00	.....	.....	2,300 00 I
State Normal School at Montclair.				
Maintenance	66,176 06	.....	.....	2,176 06 I
Repairs and insurance	9,951 23	.....	.....	3,951 23 I
Practice teaching	12,121 10	.....	.....	378 90 D
New buildings, etc. ....	.....	.....	.....	2,000 00 D
		88,248 39		3,748 39 I

*November 1, 1917, to June 30, 1918 (8 months).

†County Vocational School expenditures are not reported by County Superintendents in their reports.

SUMMARY OF STATISTICS—Continued

For the School Year Beginning July 1, 1917, and Ending June 30, 1918

DISBURSEMENTS (Continued)	1917-18			Increase or decrease compared with 1916-17
State Normal School at Newark.				
Maintenance	\$73,286 40	.....	.....	\$36,713 60 D
Repairs and insurance	2,329 61	.....	.....	170 39 D
Practice teaching	10,855 76	.....	.....	2,894 24 D
		\$86,471 77	.....	39,778 23 D
New Jersey School for the Deaf.				
Maintenance	56,232 51	.....	.....	8,767 49 D
Repairs, insurance, etc.....	9,252 12	.....	.....	30,747 88 D
		65,484 63	.....	39,515 37 D
Bordentown Industrial School for Colored Youth.				
Maintenance	38,417 56	.....	.....	1,417 56 I
Repairs, insurance, etc.....	1,500 00	.....	.....	500 00 I
New buildings, improvements, etc.	37,021 29	.....	.....	15,978 71 D
		76,938 85	.....	14,061 15 D
TOTAL EXPENDED FOR STATE INSTI- TUTIONS			\$430,443 20	93,306 80 D
ADMINISTRATIVE EXPENSES—Dis- tricts.				
Salaries, supplies and expenses of Boards of Education and business offices		232,555 89	.....	24,497 95 I
Salaries of superintendents of schools	137,900 00	.....	.....	8,840 00 I
Salaries of assistant superintend- ents	20,300 00	.....	.....	18,450 00 D
		158,200 00	.....	9,610 00 D
Expenses of superintendents, etc. Salaries of District Clerks or Secretaries		69,003 59	.....	3,957 35 I
Salaries of Custodians of School Moneys		137,074 08	.....	9,729 47 I
Compulsory attendance, salaries, etc.		32,577 98	.....	2,133 76 I
		152,093 03	.....	17,732 43 I
			781,504 57	48,440 96 I
INSTRUCTION EXPENSES.				
DAY SCHOOLS.				
Salaries, supervisors, princi- pals and teachers, including special summer schools	15,152,268 76	.....	.....	1,256,310 39 I
Expenses special summer schools	24,591 59	.....	.....	11,697 34 I
Textbooks	440,144 51	.....	.....	10,645 62 I
Supplies, other expenses of in- struction	674,430 63	.....	.....	38,444 51 I
Apparatus purchased with cur- rent expense funds	83,269 10	.....	.....	8,258 07 I
Helping teachers	30,283 20	.....	.....	5,154 40 I
County truant officers	2,050 00	.....	.....	2,050 00 I
Supervisor child study	1,850 00	.....	.....	1,850 00 I
		16,408,887 79	.....	1,334,410 33 I
EVENING SCHOOLS.				
Salaries of teachers, etc.....	156,076 70	.....	.....	40,889 95 D
For all other salaries, supplies, etc.	30,521 43	12,131 74 D
		186,598 13	53,021 69 D

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SUMMARY OF STATISTICS—*Continued*

For the School Year Beginning July 1, 1917, and Ending June 30, 1918

DISBURSEMENTS (Continued)	1917-18	Increase or decrease compared with 1916-17
EVENING SCHOOLS FOR FOREIGN-BORN RESIDENTS.		
Salaries, principals and teachers	\$5,438 59	\$2,139 41 D
Textbooks and supplies	296 56	1 26 D
Janitors' salaries	1,211 98	366 24 I
Other expenditures	633 06	400 44 I
	\$7,580 19	1,378 99 D
MANUAL TRAINING—DAY.		
Salaries, supervisors, principals, etc.	498,831 97	61,742 03 I
Material and supplies	165,815 65	7,069 06 I
Repairs and replacements	11,163 82	6,015 75 I
New equipment	52,310 08	3,203 50 I
Other expense	11,246 41	3,918 08 I
	739,367 93	81,948 42 I
MANUAL TRAINING—EVENING.		
Salaries, supervisors, principals, etc.	314 00	1,480 00 D
Material and supplies	1,464 71	230 32 D
All other expense .....	.....	304 50 D
	1,778 71	2,014 82 D
VOCATIONAL SCHOOLS—DAY.		
Salaries, supervisors, principals, etc.	134,209 39	17,842 89 I
Material and supplies	20,683 69	1,794 86 I
Repairs and replacements	3,021 29	39 83 D
New equipment	31,829 25	28,391 34 I
All other expense	27,277 05	18,943 15 I
	217,020 67	66,932 41 I
VOCATIONAL SCHOOLS—EVENING.		
Salaries, supervisors, principals, etc.	46,197 55	1,756 01 D
Material and supplies	4,660 03	2,100 38 I
Repairs and replacements	688 86	385 93 I
New equipment	198 93	263 61 D
All other expense	7,459 97	2,447 58 D
	59,205 34	1,980 89 D
AUXILIARY AGENCIES—Expenses.		
Teachers' Libraries	250 00	50 00 D
Transportation of pupils—other districts	279,825 30	29,176 54 I
Transportation of pupils—within districts	249,701 97	69,622 02 I
	529,527 27	98,798 56 I
Medical inspection, salaries, supplies	284,703 56	26,267 52 I
Lectures and recreation (playgrounds)	66,128 40	4,723 56 D
SCHOOL LIBRARIES.		
Salaries of librarians	8,282 67	1,839 97 I
Library books	14,569 29	274 14 D
Apparatus	5,363 46	1,692 80 I
Educational works of art	1,357 12	788 65 D
	29,572 54	2,469 98 I
MISCELLANEOUS.		
Tuition paid to other school districts	458,615 64	12,497 68 I

SUMMARY OF STATISTICS—Continued

For the School Year Beginning July 1, 1917, and Ending June 30, 1918

DISBURSEMENTS (Continued)	1917-18			Increase or decrease compared with 1916-17
Leasing school buildings.....	\$21,524 52	.....	.....	\$1,560 14 I
Interest on temporary loans..	47,429 21	.....	.....	7,525 04 I
Telephone services	32,393 04	.....	.....	3,350 88 I
Incidental expenses	82,372 94	.....	.....	37,302 50 I
		\$642,335 35	.....	62,236 24 I
TOTAL INSTRUCTION EXPENSES.....	.....	.....	\$19,954,460 45	1,658,339 47 I
OPERATION OF SCHOOL PLANT.				
Wages, janitors, engineers, fire- men	1,407,379 21	.....	.....	151,617 87 I
Wages of other employees.....	89,318 31	.....	.....	19,746 78 I
Fuel	934,750 60	.....	.....	229,907 10 I
Water, light and power	211,100 86	.....	.....	1,724 48 I
Janitors' supplies	136,498 68	.....	.....	26,123 63 I
		2,779,047 66	.....	429,119 86 I
MAINTENANCE OF SCHOOL PLANT.				
Ordinary repairs (current up- keep)	656,079 11	.....	.....	134,246 54 I
Repairs and replacement of equipment	164,562 35	.....	.....	6,984 18 D
Insurance	131,620 51	.....	.....	2,276 90 D
Outhouses or waterclosets—re- pairs	5,363 05	.....	.....	1,684 46 I
		957,625 02	.....	126,669 92 I
LAND AND BUILDINGS.				
Purchase of land.....	463,813 62	.....	.....	217,790 45 D
Building, enlarging schoolhouses.	4,408,790 16	.....	.....	277,956 14 I
Extraordinary repairs	288,535 31	.....	.....	249,875 29 D
Furniture and equipment	278,909 30	.....	.....	27,851 69 D
		5,440,048 39	.....	217,561 29 D
OTHER PAYMENTS.				
Redemption of bonds	631,785 71	.....	.....	49,688 21 I
For payments to sinking fund ..	567,163 51	.....	.....	36,818 85 D
Interest on bonds	2,310,093 76	.....	.....	47,308 02 I
Payment notes authorized by vote of district	70,719 76	.....	.....	16,939 98 I
Interest on notes authorized by vote of district	12,421 13	.....	.....	4,958 43 I
		.....	3,592,183 87	82,075 79 I
TOTAL EXPENSES .....	.....	.....	\$33,551,909 81	\$1,903,224 77 I
Unused State Appropriation lapsed into State Fund				
	.....	308,013 33	.....	.....
Balance of Federal Funds carried over to 1918-19 .....	.....	15,569 46	.....	.....
Unused Railroad Fund lapsed into State Fund .....	.....	160,131 35	.....	.....
		.....	34,035,623 95	.....
Balance reported remaining with custodians of school moneys June 30, 1918 .....	.....	.....	4,706,620 86	1,929,577 80 D
TOTAL PAYMENTS, AMOUNTS LAPSED, AND BALANCE .....	.....	.....	\$38,742,244 81	\$457,361 11 I

SUMMARY OF STATISTICS—Continued

For the School Year Beginning July 1, 1917, and Ending June 30, 1918

COST OF EDUCATION (Based on expenses of maintaining the public day schools).	1917-18		Increase or decrease compared with 1916-17	
Administrative expense—school districts.....	\$781,504	57	\$48,440	96 I
Instruction expense—day schools.....	16,408,887	79	1,334,410	33 I
Transportation expense	529,527	27	98,798	56 I
Medical inspection expense	284,703	56	26,267	52 I
Operation of school plant	2,779,047	66	429,119	86 I
Maintenance of school plant.....	957,625	02	126,669	92 I
Current expense	\$21,741,295 87		2,063,707	15 I
Average yearly cost per pupil based on total enrollment in day schools	38 69		2 54	I
Average yearly cost per pupil based on attendance in day schools	51 30		5 32	I

ENROLLMENT AND ATTENDANCE	1917-18	Increase or decrease compared with 1916-17	
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DAY SCHOOLS ONLY			
Boys enrolled in day schools	282,789	8,088	I
Girls enrolled in day schools	279,036	9,456	I
Total enrollment in day schools.....	561,825	17,544	I
Total number days present—day schools	78,434,201 ½	3,402,277	I
Average daily attendance	423,750	4,124	D
Average attendance of each pupil—day schools.	139 days	1 day	I
Possible number of days attendance—day schools	88,864,326	6,101,242	I
Total number of days absent	10,430,124 ½	2,698,965	I
Average absence of each pupil.....	18 days	4 days	I
Per cent of attendance .....	.88		
Total attendance in day and evening schools, including all allowances as per law (not actual attendance)	81,912,592	1,632,570	D
Total number of times tardy	763,876	183,320	I
Sum of number of teaching sessions as reported in all registers—day schools	4,832,531	355,673 ½	I
Average number of cases of tardiness per session .....	.15806		
Pupils neither absent nor tardy—day schools...	16,290	7,889	D
Sessions truant—day schools	58,177 ½	11,198	I
Total number of days transported.....	2,116,089 ½	220,517 ½	I
Pupils transported within district for whom cost of transportation is paid	10,677	1,416	I
Pupils transported from without district, for whom cost of transportation is paid.....	7,672	132	D
Pupils enrolled who have attended public schools in other districts in the State during the present school year	19,574	1,218	I
Cases of suspension or expulsion during year...	1,689	35	D
Enrollment.			
Kindergarten	39,858	3,164	I
Grades I-IV	267,746	8,559	I
Grades V-VIII	167,529	5,637	I
Grades IX-XII	49,806	2,778	I
Rural schools—one room	20,015	1,479	D
Rural schools—two room	13,962	1,245	D
Subnormal classes	2,501	281	I
Classes for blind	28	1	I
Classes for deaf	107	28	D
Training classes	177	150	D
Other special classes	96	26	I
Number of children public schools will seat.....	564,043	25,069	I

SUMMARY OF STATISTICS—Continued

For the School Year Beginning July 1, 1917, and Ending June 30, 1918

ENROLLMENT AND ATTENDANCE (Continued)	1917-18	Increase or decrease compared with 1916-17	
EVENING SCHOOLS			
Number of evenings the schools were maintained, including legal holidays and institute days	68	3	D
Male pupils enrolled	19,675	585	D
Female pupils enrolled	13,913	789	D
Total pupils enrolled in evening schools	33,588	1,374	D
Total attendance (1 night=½ day)	418,980	120,819	D
Men teachers	431*	19	I
Women teachers	449	11	D
Total teachers employed in evening schools	880	8	I
Total salaries of evening school teachers	\$168,469 15†	\$28,497 50	D
Average salary per night paid to men teachers	3 18	32	D
Average salary per night paid to women teachers	2 46	43	D
Amount expended for all other salaries, supplies, etc.	30,521 43	12,131 74	D

*Some county superintendents included manual training and vocational teachers in this figure which is not correct.
†This amount does not agree with the figure given in the financial table, as some county superintendents included salaries of manual training and vocational teachers.

NUMBER OF TEACHERS	1917-18			Increase or decrease compared with 1916-17		
	Men	Women	Total	Men	Women	Total
Total number of teachers, day and evening....	2,414	15,329	17,743	79 D	526 I	447 I
Superintendents	38					
Assistant Superintendents (An assistant superintendent is one who stands in very intimate relation to the superintendent and whose duties are mainly connected with supervision of instruction and with general oversight of a system under the direction of the superintendent)	5			3 D	6 D	9 D
Approved Supervising Principals	79	3	82	4 D	1 D	5 D
Unapproved Supervising Principals (Those who devote their time to administration and supervision of instruction of a group of schools)...	76	16	92	1 I	11 D	10 D
Non-teaching Principals (Those who devote their time to administration and supervision of instruction of a school)	255	151	406	6 I	1 I	7 I
Supervisors (Those who direct and assist teachers in matters pertaining to instruction other than supervising and non-teaching principals)	5	41	46	4 D	1 D	5 D
Special Supervisors (Those who assist teachers in matters pertaining to instruction in special subjects)	58	184	242	14 I	40 I	54 I
Teachers rural schools (one room) (A rural school is one located either in the open country or a village, the majority of whose pupils are the children of farmers and others living in the open country).....	49	565	614	29 D	41 D	70 D
Teachers rural schools (two room) (Teachers considered in the one and two room rural school tables are not considered in the grade teachers' tables)	48	371	419	12 D	29 D	41 D
Teachers Kindergarten		693			32 I	
Teachers Grades I-IV	6	6,073	6,079	5 D	146 I	141 I
Teachers Grades V-VIII	217	4,278	4,495	39 D	251 I	212 I
Teachers Grades IX-XII	715	1,354	2,069	15 D	124 I	109 I

SUMMARY OF STATISTICS—Continued

For the School Year Beginning July 1, 1917, and Ending June 30, 1918

NUMBER OF TEACHERS (Continued)	1917-18			Increase or decrease compared with 1916-17		
	Men	Women	Total	Men	Women	Total
Short Term Teachers (Teachers teaching not less than four months but not for the full term. A teacher teaching less than four months is classed as a substitute teacher)...	9	37	46	5 I		5 I
Substitute Teachers (Teachers not assigned to regular classes or teaching for less than four months)	4	60	64	3 I	2 D	1 I
Special Teachers—Ungraded, Backward and In-corrigible Classes	8	43	51	1 I	8 D	7 D
Special Teachers—Teacher Clerks		192	192	1 D	11 I	10 I
Manual Training Teachers—Day (Includes supervisors and teachers devoting full time to the work. Those not devoting full time are classed as regular day school teachers and not manual training teachers)	194	266	460	4 I	44 I	48 I
Manual Training Teachers—Evening.....	22	10	32	6 I	2 D	4 I
Vocational Teachers—Day	50	54	104	5 I	3 D	2 I
Vocational Teachers—Evening.....	107	78	185	9 I	16 I	25 I
Evening School Teachers (Teachers considered in the day school tables and teaching in the evening schools are considered in this table)..	373	412	785	33 D	43 D	76 D
Foreign-born Evening School Teachers (receiving State Aid)	17	35	52	1 D	10 D	11 D
Special Teachers—Subnormal Classes	4	160	164	2 I		2 I
Special Teachers—Deaf Classes		12				
Special Teachers—Blind Classes		3				
Special Teachers—Unclassified	75	238	313	11 I	18 I	29 I
Trained Teachers, men and women			13,808			637 I
Untrained Teachers, men and women (Exclusive of evening school teachers)			2,881			132 D

SALARIES OF TEACHERS	1917-18		Increase or decrease compared with 1916-17	
	Men	Women	Men	Women
Average salary per year paid to all day school teachers (16,646) not including superintendents, assistant superintendents or evening school teachers of any kind.....	\$948	29	\$52	60 I
Average salary per month paid to all day school teachers	106	55	2	40 I
Average salary per year paid to				
Superintendents	3,628	95	232	63 I
Approved Supervising Principals	1,908	11	156	42 I
Unapproved Supervising Principals	2,023	40	27	37 I
Non-teaching Principals	2,449	21	94	05 I
Supervisors	1,910	00	365	56 I
Special Supervisors	1,619	82	90	85 I
Rural School Teachers—one room.....	614	01	61	99 I
Rural School Teachers—two room.....	719	51	49	57 I
Kindergarten Teachers				
Elementary Teachers—Grades I-IV.....	869	66	44	43 D
Elementary Teachers—Grades V-VIII.....	1,046	44	83	04 I
High School Teachers—Grades IX-XII.....	1,724	07	118	44 I
Short Term Teachers	746	33	79	33 I
Substitute Teachers	1,025	00	360	00 I
Special Teachers—Ungraded, Backward and In-corrigible Classes	1,187	50	18	93 I
Teacher Clerks				
Manual Training Teachers—Day Schools....	1,222	78	84	99 I
Vocational Teachers—Day Schools.....	1,427	64	95	42 I

SUMMARY OF STATISTICS—Continued

For the School Year Beginning July 1, 1917, and Ending June 30, 1918

SALARIES OF TEACHERS (Continued)	1917-18		Increase or decrease compared with 1916-17	
	Men	Women	Men	Women
Average salary per night paid to Manual Training Teachers—Evening Schools. Vocational Teachers—Evening Schools Evening School Teachers Foreign-born Evening School Teachers.....	2 42 4 11 3 17 2 69	 3 09 2 45 2 11	26 D 72 D 28 D 82 D	 12 D 36 D 51 D
SCHOOL TERM	1917-18		Increase or decrease compared with 1916-17	
Average time schools were maintained (a school month is 20 days)	8 mos. 18 days (178 days)		6 days I	
SCHOOL DISTRICTS. HOUSES. ETC.				
School districts Buildings owned Buildings rented Total school buildings Classrooms Buildings completed during the year..... Buildings enlarged or remodelled during year.. One room buildings Two room buildings Three room buildings Four room buildings Five or more room buildings	487 2,115 66 2,181 14,666 42 37 760 281 64 208 868		5 I 10 D 1 I 9 D 280 I 3 D 9 D 43 D 15 D 1 I 18 I 30 I	
VALUATION OF SCHOOL PROPERTY				
Total value of school property..... Average value of New Jersey School buildings..	\$79,999,965 93 36,680 40		\$5,855,413 99 I 2,824 44 I	
GRADUATES OF STATE NORMAL SCHOOLS				
Trenton Montclair Newark	292 258 452		7 I 20 I 129 I	

Respectfully submitted,

Calvin N. Keddell

Commissioner of Education.

PART II

REPORTS OF ASSISTANT COMMISSIONERS

For year ending June 30, 1918

ELEMENTARY EDUCATION

PREPARED BY

ZENOS E. SCOTT

Assistant Commissioner in charge of Elementary Education

I respectfully submit the following report for the school year 1917-18. It is a pleasure to acknowledge the cooperation of the members of the Department, county superintendents, supervisors and teachers of the State. This cooperation has been very stimulating and helpful at all times.

ENROLLMENT, ELEMENTARY SCHOOLS—1913 TO 1918 INCLUSIVE

	1912-13	1913-14	1914-15	1915-16	1916-17	1917-18	Percentage of Incr. or Decr. 1918 over 1913	
							Incr.	Decr.
Kindergarten	33,626	34,217	35,741	37,784	36,694	39,858	18.5	
Primary grades . . .	238,642	246,154	251,675	256,602	259,187	267,746	11	
Grammar grades . .	128,775	136,914	148,472	157,718	161,892	167,529	30	
Rural, one room . .	26,836	25,463	24,872	23,668	21,494	20,015		25
Rural, two room . .	15,238	15,880	14,897	14,634	15,207	13,962		08
Total enrollment in elementary schools, exclud- ing kindergar- ten	409,491	424,411	439,914	453,622	457,780	469,252	14.5	
Total enrollment . .	443,117	458,628	475,655	491,406	494,474	509,110	14.8	
Average daily at- tendance	378,017	382,218	409,417	421,884	427,874	423,750	12	

THE SIGNIFICANCE OF CERTAIN ENROLLMENT FACTORS

The above table, showing the enrollment in the divisions of the elementary schools from 1913 to 1918 inclusive, should be studied, first, to note the general increase or decrease in each division; second, to note the relative number of pupils in each division in terms of the total enrollment.

General increase or decrease in divisions. The table indicates the general increase during a six year period in the number of children attending elementary schools in New Jersey. In the kindergarten division, for example, the increase in round numbers is 6,000; in grades one to four inclusive, approximately 28,000; in grades five to eight inclusive, approximately 39,000.

The significance of these figures is better shown in terms of percentage. The increase from 1913 to 1918 in the kindergarten is 18.5 per cent; the increase from 1913 to 1918 in grades one to four is 11 per cent; the increase from 1913 to 1918 in grades five to eight is 30 per cent. It is encouraging to note

that in the grammar grades is the greatest increase in enrollment. This proves the holding power of the elementary schools.

There is another phase of this table that is worth studying. In 1913 over 26,000 pupils were enrolled in one room country schools, while in 1918 approximately 20,000 were enrolled in one room country schools, a decrease of 25 per cent. In 1913 over 15,000 children were enrolled in two room country schools, while in 1918 approximately 14,000 children were so enrolled, a decrease of 8 per cent.

These decreases in enrollment in country schools do not mean that there are fewer children in the country than in 1913, nor do they mean that the compulsory attendance law has been less efficiently enforced. On the other hand, however, they do definitely show that country people are seeing the importance of the consolidation of schools. In many instances, in many locations of the State, schools are being consolidated to the great benefit of the country boys and girls.

The second hopeful inference to be drawn from these decreases is that many of the boys and girls in the grammar grades have gone to town and city schools for the work of the upper grades. As a rule, in these town and city schools the children of these upper grammar grades are better provided for than they were in country schools. This type of consolidation also means greater educational advantages. The grammar grade pupils who are transported to town schools make more rapid progress. The primary children who remain in the one and two room schools can be taken care of to much greater advantage.

Relative number of pupils in each division. As shown in this table, the total enrollment in 1913 in the elementary schools, excluding the kindergarten, was 409,491. Of this number, 368,417 were in graded schools, 41,074 in rural schools. In terms of total enrollment 58 per cent of these pupils were enrolled in grades one to four inclusive, 31 per cent were enrolled in grades five to eight, and 10 per cent were enrolled in rural schools.

In 1918 the total enrollment in elementary schools, exclusive of the kindergarten, was 469,252. Of this number 435,375 were in graded schools, 33,977 in rural schools. In terms of total enrollment 57 per cent of these pupils were enrolled in grades one to four inclusive, 36 per cent were enrolled in grades five to eight inclusive, and 7 per cent were enrolled in rural schools.

On the whole, this shows too large an enrollment in grades one to four in contrast with the number enrolled in grades five to eight inclusive. If our schools are to perform their true function a much larger percentage of children proportionately should be enrolled in the grammar grades. Therefore a very important problem before the State of New Jersey is to provide ways by which boys and girls may remain in school long enough to finish the elementary course.

The present compulsory attendance law of New Jersey was passed in 1911. It is very evident that by 1913 the effects of this compulsory law were showing. It is also evident that the increased enforcement of this law has been in progress since that time, since the enrollment in the grammar grades has increased more, proportionately, than in any other division during the six year period.

Physical education under ideal conditions

Indication of good school work

Each interested in his neighbor

Health and happiness go hand in hand

EXCELLENT OPPORTUNITIES OFFERED IN LUMINGWOOD

Educationally, however, this increase in enrollment is significant, not from the point of view of the effect of the compulsory attendance law, but rather from the fact that it indicates definitely that boys and girls want to go to school longer; that they are more willing to take advantage of a full elementary education. When one considers the great inducements that are offered to boys and girls above fourteen years of age who have finished the fifth grade, to leave school and go to work at some profitable employment, such an increase in enrollment is one proof of the efficiency of any school system. A school system that continues to hold boys and girls in school, and to provide advantages by which they may move progressively from grade to grade, is performing a great function. This table shows that the schools of New Jersey are progressively increasing in their power to make school life more worth while for all pupils. It also indicates that greater progress in this direction ought to be made. New Jersey as a state can never be satisfied with good schools; she wants continually better and better schools in order to insure that the children of the state may adequately perform their duties in our growing democracy.

WAYS TO INSURE BETTER EDUCATIONAL OPPORTUNITIES THROUGH INCREASED ENROLLMENT AND ATTENDANCE

Permanent continuing census. In order to adequately enforce the compulsory attendance law the school authorities should have an accurate record of all pupils in the community who are of school age. The law now states that school boards may have a school census taken. If such a census were taken in each district at least once in three years school enrollment could be more readily checked. The greatest enterprise in which the State is engaged is the education of its children. Data showing how many children of school age there are in the State, where they are, and what their school attendance has been, are essential if all are to have equal educational opportunities.

Uniform pupil records. At the present time the pupil record cards vary in the different districts of the State. There are certain definite points of information which all pupil record cards should show. If uniform pupil record cards such as are used in many of the city systems could be adopted for use in all schools, in both city and country districts, essential data would be available for all schools. If such a system were established throughout the State it would go a long way toward insuring better attendance on the part of pupils, and it would emphasize the importance of keeping permanent educational records of all children.

State attendance officer. When one considers that there are enrolled in the elementary schools of New Jersey over one-half million children it is evident that keeping these children in school is an important task. The progress of these children through the schools is determined to quite a degree by their record in attendance. Local attendance officers can do and are doing much to insure that children attend school. The work of these local officers, however, could be unified and extended through a centralized agency. In my judgment a state attendance officer, as a regular part of the state department of education, is a necessary factor to insure maximum uniform attendance throughout the State.

SUPERVISORY POLICIES

There are in the State of New Jersey 21 county superintendents, 82 approved supervising principals, 92 unapproved supervising principals, and 24 helping teachers. The department of elementary education has direct connection with all these officials in the administration and supervision of the elementary schools. These supervisors are responsible for the supervision and administration of the work of approximately 8,000 teachers.

It is evident that if the work of my department is to be of maximum value my energies must be concerned primarily with the work of the supervisors rather than with that of the teachers. Therefore the policies that govern the supervision and administration of this department must be supervisory policies in the main. These policies must be fundamental educational policies, worked out in such detail that they will be stimulating and helpful to the supervisory officers of the State. The end and aim of all supervision is to secure better and better teaching. To have good teaching in certain sections of the State and poor teaching in other sections of the State; to have poor supervision in certain sections of the State and good supervision in others means that it is not possible to have a high level of good teaching or good supervision throughout the State. Our educational aims are being accomplished only when there is being secured throughout the State good teaching, good supervision and good administration of schools.

The most important function of my department, therefore, is to have such policies in supervision, and to be able to carry out these policies to such a degree that there will be a progressive and constant raising of the quality of teaching and supervision throughout the State. In order that this may be accomplished to any degree of efficiency fundamental guides in supervision and teaching must be constantly before the minds of those of us who supervise the schools. The following policies have been adhered to as progressive supervisory criteria throughout the year, for myself as commissioner of elementary education, and for the supervisors and teachers with whom I work:

1. That all teachers are expected to grow in teaching skill through teaching.
2. That all supervisors are expected to become better supervisors through the work of classroom supervision.
3. That supervision to be worth while must be constructive in its policies.
4. That if supervision is to create enthusiasm among the supervising and teaching bodies it must be favorable wherever possible. That whatever negative criticism is given, the ways to improve the situations must be illustrated in detail.
5. That the various supervisors of the State have definite policies of their own, which are to be talked over in group meetings of supervisors and changed whenever they are out of harmony with the common practice of progressive supervision.
6. That supervisors keep a record of the supervision which they do from day to day. It is only in this way that supervisors are able to improve their practice. Mistakes which they make can, in this way, become really great opportunities through which they increase their supervisory skill.
7. That supervision be optimistic. Good supervision expects the teacher to do tasks which are difficult. But optimistic leadership stimulates the teacher

to utilize the difficult situations as opportunities by which they increase in "good teaching."

- 8. That supervisors must make special use of their teachers of marked ability by having them give demonstration teaching, assist in the making of lesson plans, programs and the course of study, help at teacher conferences, etc.

9. That supervision must so direct the work of the teacher that she feels the necessity of utilizing the varying abilities of the children of her room or school. This makes it possible for both the supervisors and the teachers to recognize the individual differences in abilities of children and to teach and supervise in accordance with such varying abilities.

10. That supervision place before the teacher constantly "better teaching" as a goal. That "better teaching" means furnishing situations in which pupils enjoy each school day; in which they exercise group cooperation, in play, in games, in study period, in recitation, in opening exercises, in community exercises; situations in which teacher and pupils work together for correct habit formation and citizenship training.

11. That the supervisor of a given school or system is responsible for all the school activities. Therefore manual training, domestic science and art, physical training and good health are schoolroom results for which he is responsible.

12. That the supervisor is responsible for mobilizing the thought of his community around schoolroom and community problems. This policy in supervision emphasizes the fact that the supervisor's work does not stop at the end of a school day, or when the supervisor has stepped outside a schoolroom situation, but that it extends out into the community, giving the community an attitude of mind toward the value of the schools as the instrument by which the boys and girls of the community are made into worth-while citizens.

These in the main are the policies which have governed my supervision during the past year. They have been held to constantly when visiting the various supervisors in different sections of the State, when holding meetings or conferences with the supervisors, in visiting the hundreds of teachers in whose rooms I have had the good pleasure to see progressive school work going on.

To be responsible for stimulating supervision and to be sure of any tangible results it has been necessary for me, as stated before, to center the majority of my efforts around the problems of the supervisors rather than those of the teachers. By affecting the practice of a given supervisor in regard to teaching or in regard to any of the policies mentioned, I may in this way affect indirectly all the teachers under his system.

The most serious handicaps in following out the policies named, and in attempting to add to New Jersey's elementary school progress, are as follows:

The lack of a Bureau of Educational Measurements.

Lack of sufficient clerical help by which all of the work of this department could be made available to the various supervisors of the State.

In my estimation New Jersey will make the greatest progress in elementary education only by having a Bureau of Educational Research in connection with the elementary field of education. The function of this Bureau would be to provide an expert in educational measurements whose duty would be to assist any board of education, any supervising principal in the State to measure

scientifically the progress made by the various groups of children in the respective districts, to determine standards of teaching materials, and to determine scientifically the best teaching methods. Many of the progressive cities in the country have already established such bureaus. A few state departments have such bureaus as a regular part of the public school system. I am sure that the establishment of such a bureau in connection with this department would mean better teaching and better supervision throughout the State.

SPECIAL PROBLEMS DEALT WITH DURING THE YEAR

To guide supervision of county superintendents, supervising principals and helping teachers.

To explain and emphasize courses of study in physical training, and to interpret the other monographs.

To stimulate war work in the elementary schools.

To stimulate county field days, community festivals.

To provide standards in teaching and supervision.

Direct work with County Superintendents, Supervising Principals and Helping Teachers. The educational possibilities of the county superintendent's office are increasing greatly from year to year. It is through this office that progressive State and county educational policies and programs are put across. During the period in which we have been at war the county superintendents have been called upon to do very important services in furthering all preparedness and win-the-war measures. New Jersey is fortunate in having such able men in these educationally strategic positions. They have accepted these obligations and responsibilities in a fine way, and the results which they have achieved in the supervision and administration of the schools in their respective counties are positive proofs of the spirit and the growth of these men. The county superintendent or supervising principal who accepts his educational obligations today must necessarily grow, just as any other professional man must grow in order to keep abreast of the changing situations which he meets from day to day. These county superintendents are the officials who help to organize and stimulate the work of the supervising principals of the different counties. Much of the success of the school work of the different counties in the small towns and the country depends upon the degree to which these different officials work together in harmony.

During the past year I have met many groups of these supervising principals in different counties, where, according to the plans made by the county superintendent, schools were visited during the regular school day and conferences were held at the close. These conferences were round table discussions based upon the work observed in the different systems visited. In other instances I spent a day with the county superintendent, visiting the system of schools over which a given supervising principal had charge. As a rule, at the close of such a visit a conference was held with the supervising principal and often with the teaching corps. All these meetings have been very stimulating to me, illustrating how important it is for those responsible for education to keep constantly in touch in order that a cumulative educational program may be carried out. From the results which I have seen in

following up the work of these meetings I am quite sure that they have been one of the most profitable ways by which good supervision and good teaching may be encouraged; one of the most profitable ways by which the boys and girls of New Jersey may receive better educational opportunities. If this Department had as a regular part of its organization a Bureau of Educational Measurements, such as is mentioned in another part of my report, it would have the machinery with which to follow up all the meetings discussed herein. As I see it, the next necessary step in progressive school supervision is to provide means which will insure that careful records of all supervisory work be made and that these records become available to all supervisors and to all teachers concerned in a given system. A Bureau of Educational Measurements would provide this machinery.

Much of my effort during the past year was spent in cooperating with the county superintendents and helping teachers toward the solution of their various problems. I spent from two to six days in each of the rural counties visiting schools with county superintendents and helping teachers, illustrating both in the classroom and in discussion the types of teaching and supervision which would determine progress for our schools. The county superintendents and helping teachers have attacked the rural school problem with such foresight and skill that the progress in teaching in the rural schools has been remarkable. Through the work of the helping teachers it is possible for all the country schools to receive direct supervision. Teachers who are excellent teachers are becoming more skilled in their work through the supervision of helping teachers; those who are good teachers are becoming better, and the poor ones are learning *how* to teach. The work of this past year has proven beyond doubt that the helping teacher is a most positive force in the supervision of schools. I trust that provision will be made by which the salaries of these helping teachers may be advanced to such a point that the State may be able to keep women of marked ability for this kind of work. In my judgment progress in rural schools will come more rapidly through the work of the helping teacher in cooperation with the county superintendent than in any other way.

PROGRESS IN PHYSICAL TRAINING

In the early part of the year, in conjunction with my colleague, Mr. Meredith, I met the various superintendents and supervisors of the State in five sectional meetings. At these meetings I discussed in detail the purpose of the physical training law, the way in which the monographs in the elementary schools attempted to carry out this law. These meetings were attended by practically all the supervisors in the different sections of the State. After the general presentation there was much discussion of the work. A direct result was that a general policy in regard to physical training was established in the early part of the year.

In the county institutes, which were held in ten counties of the State, I also talked to both supervisors and teachers in regard to physical training. In this way new impetus was given to the policies stressed in the earlier conferences, and more specific directions were given in regard to teaching in accordance with the physical training monographs.

I am confident that as great progress as was ever made in any State in physical training was brought about in New Jersey during the last year. Supervisors and teachers everywhere accepted the physical training law as a very important contribution to the educational system of New Jersey. They were eager to understand how to interpret the course of study and to put it across. During my supervision throughout the entire year I emphasized physical training as a necessary part of citizenship training, at supervisors meetings, at teachers' meetings, in the classroom, both in country and town, and on the playground with the children. The pupil interest and enjoyment in this work increased from day to day. The teacher interest and skill in presenting the work increased from week to week. By the end of the year there was not a single school in New Jersey that had not made some progress in showing boys and girls how to have a better time in school and how to take better care of their bodies. The majority of the school systems made progress enough in this line to deserve special mention. The elementary school children of New Jersey were happy children throughout the year.

A very important factor also was the improvement in the work and health of the teachers, due to physical training. Just as it aided the children to do their work better and to receive more enjoyment in the regular school work, so it aided the teachers. In all cases the teachers saw a new interpretation of school life and they took every opportunity to increase their own health and to insure the greater joy in school life.

WAR WORK IN THE ELEMENTARY SCHOOLS

The war work affected every elementary school in New Jersey. The supervisors and teachers of the State accepted the new obligation given them with courage and enthusiasm, and war work in the schools was continued throughout the year. If there were any failures to carry out definitely the war program they were due not to lack of willingness or enthusiasm, but to lack of ability to do as much as they were asked to do.

In short, the supervisors and teachers of the State conducted the schools on a war schedule throughout the year. In town and country schools boys and girls joined the Red Cross. They bought Liberty Bonds and Thrift Stamps; they organized Thrift Clubs, Garden Clubs, Calf Clubs. They knitted for the soldiers; they made garments for the relief workers; they snipped for the Red Cross; they made four-minute speeches to encourage preparedness for war; they sold Liberty Bonds; they sang patriotic songs; they determined the number of boys who had gone into service from the respective schools and made service flags in their honor.

All these activities were entered into by practically all the school children in the State of New Jersey, not half-heartedly, but whole-heartedly. Such work took much time and effort on the part of supervisors, teachers and pupils. Some of this time was taken directly from the regular school day; much of it came as an added duty. In any case the fact remains that supervisors, teachers and pupils were doing a patriotic duty, which they were proud to do.

The direct results were better schools, more interest in the schools, more wide-awake teaching, and more democratic schools than ever before. I feel certain that considering all the war work which the elementary school chil-

dren of New Jersey did—and it was no small amount—the returns in terms of better school work, better citizenship training, were never greater. The supervisors of the State, the teachers of the State, and the children deserve great credit for the way in which they have helped to uphold the hands of the boys at the front, most of whom are partial products of public school influence.

COUNTY FIELD DAYS AND COMMUNITY FESTIVALS

In my meetings with various groups of supervisors throughout the State, and in my daily visiting, I have tried to encourage the work of Community Festivals and County Field Days. These have become a vital factor in the schools of New Jersey. During this past year as many as eight of the counties held regular County Field Days; four other counties held Community Festivals of a local nature, but of importance to the various communities. These field days are important because supervisors, teachers and pupils are very important factors in mobilizing the forces of the various communities throughout the State, and thereby uniting those forces for better educational opportunities.

I trust the coming year will see this work perfected to such an extent that we may have a State Field and Community Day to which all the school systems of New Jersey may send representatives.

COUNTY INSTITUTES

The County Institute as conducted in New Jersey is an excellent means to stimulate better teaching and better supervision. I think it would be well if such institutes of from one to three days' duration could be held in every county in New Jersey.

During the past year institutes were held in ten of the rural counties. At each of these institutes I met groups of teachers and supervisors and discussed especially the work of the new monograph on "Geography, History and Civics." Dealing as it does with the social studies in the elementary school, this monograph has a very important contribution to give to supervisors and teachers, and in turn to the children of the State. It is especially significant now that we look upon geography, history and civics in the light of the important social tendencies that our elementary schools are trying to emphasize. These subject matters furnish materials for training in citizenship, materials which give training in attitudes of mind so necessary for the citizens of a democracy. Since this monograph was written from rather a new point of view it was necessary throughout the year to stress the work therein. Therefore, through local institutes, through supervisors' and teachers' meetings, I followed up the work which was begun at the various county institutes. In this way a good beginning was made toward teaching these social sciences as organized in the monograph on Geography, History and Civics.

SUPERVISORS' CONFERENCE AT OCEAN CITY

During the second week of the Ocean City Summer School it was my privilege to conduct daily round table conferences of county superintendents, helping teachers, and supervising principals. At these conferences we discussed many practical supervisory problems which the various supervisors had raised throughout the year, and a summary of which I had obtained especially for this meeting. They were on the whole the most stimulating supervisors' meetings that I have ever conducted.

Conferences of this kind are essential in order to attain the goal which the supervisors of the State are setting for themselves.

THE SPIRIT OF SUPERVISORS AND TEACHERS

Today, as never before, democracy is placing emphasis upon education as a necessary basis of good citizenship. Our schools are on a war footing. They are being administered to win the war, and to insure that through the education given therein there may be established such a high level of citizenship that the coming generation will be able to bear the burdens which will be theirs, and wisely enjoy the fruits of victory. The supervisors and teachers of the State are pledging themselves daily to these tasks. I believe that the supervisors and teachers will perform most willingly every task that their hands find to do; that they will add to their right to be called "Helpers in a Democracy."

SECONDARY OR HIGH SCHOOL EDUCATION

PREPARED BY

ALBERT B. MEREDITH

Assistant Commissioner in charge of Secondary Education

I respectfully submit the following report for the school year ending June 30, 1918. The statistics have been obtained from a detailed report from each school:

TABLE I

COMPARATIVE STATISTICS OF TOTALS

	1914	1915	1916	1917	1918	Incr.	Decr.
Approved four year high schools	127	133	136	136	137	1	
Partial high schools (three year)	13	14	11	10	11	1	
Registered two year high schools	11	7	7	9	9		
Registered one year high schools	2	2	2	2	2		
Total registration in high schools	38,099	44,314	50,030	50,726	51,048	322	
Pupils attending high school from adjoining districts	6,975	7,678	9,088	9,200	9,020		180
Total enrollment of State..	496,899	519,880	540,287	544,281	561,825		
High School Teachers							
Men	541	619	714	733	714		19
Women	967	1,035	1,138	1,195	1,295	100	
Total	1,508	1,654	1,852	1,928	2,009	81	

Notes and comments based on the above table:

1. The number of four year schools has increased by one, East Rutherford having been transferred from the list of two year schools.

2. Fort Lee has been added to the three year schools, and West New York now is registered as doing two years of high school work. Merchantville, which had never been registered, although maintaining a two year curriculum, has been registered as a two year school for the year ending June 30, 1919.

3. Garfield, Bergen County, has begun a year of high school work. The pupils of this city previously attended the Passaic High School.

4. The total enrollment for all high schools has increased by 322 pupils or .63 per cent. The increase of 1917 over 1916 was 1.39 per cent. This situation is in marked contrast with the increases of 15 and 16 per cent in previous

(169)

years. The somewhat surprising fact, however, is that the high schools have held their own so well during the past two years, with all the outside demands which have been made upon them.

In another part of this report it will be shown that 49,806 pupils were enrolled in the high schools, while it is stated above that the "registration" was 51,046. The difference of 1,242 is due to the fact that pupils who are promoted to the high school in February have been enrolled in the eighth grade in September, and are not re-enrolled when they enter the high school, but are included in high school registration.

The enrollment of the twelfth grade was 6,922, while 5,832 were graduated. The difference of 1,090 is largely due to pupils leaving school, although some of it is accounted for by the number entering the twelfth grade in February.

5. There has been a decrease of 180 in the number of pupils who attended high schools outside their home districts. This decrease is largely due to the extension upward of high school facilities in several urban and suburban districts, notably West New York and East Rutherford.

6. The number of men teachers has decreased by 19 and the number of women teachers has increased by 100, the net gain being 81. The insistent demand for men has come to the practical arts department of the schools, and these teachers have not usually listed with high school teachers. It may reasonably be expected that the effect of the selective service act will be more acutely felt next year in the number of men high school teachers.

7. The aggregate salary for men and women teachers was \$1,232,710 and \$1,501,586.06 respectively, with averages of \$1,724.07 for men and \$1,109 for women. In comparison with 1915 the increases have been \$172.59 for men and \$97.64 for women, but these increases have not been proportionate to the increased cost of living during the same period.

9. The number and classification of the registered private secondary schools remains unchanged, with the enrollment approximately the same.

10. A summer high school session was approved for the city of Trenton, making the second approved summer session in the State.

TABLE II

TOTAL ENROLLMENT BY CLASSES OF SCHOOLS

<i>Grade IX</i>					
	1914	1915	1916	1917	1918
Four year schools	16,483	19,259	22,569	22,255	21,271
Three year schools	198	256	163	196	184
Two year schools	240	187	161	193	159
One year schools	77	6	7	57	150
Total	16,998	19,708	22,900	22,701	21,764
<i>Grade X</i>					
Four year schools	9,322	10,782	12,524	12,731	13,263
Three year schools	161	166	107	118	120
Two year schools	132	106	91	97	14
One year schools	43	3	0	0	0
Total	9,658	11,057	12,722	12,946	13,497

Grade XI					
Four year schools	6,199	7,374	8,013	8,476	8,787
Three year schools.....	116	124	59	91	78
Two year schools	34	12	0	10	0
One year schools	0	1	0	0	0
Total	6,351	7,511	8,072	8,577	8,865
Grade XII					
Four year schools	5,085	6,038	6,336	6,409	6,922
Three year schools	0	0	0	P. G. 93	0
Two year schools	7	0	0	0	0
One year schools	0	0	0	0	0
Total	5,092	6,038	6,336	6,502	6,922
Grand total	38,099	44,314	50,030	50,726	51,048

Table II shows comparatively the distribution of pupils enrolled in the different classes of schools during the past four years. It appears that the total enrollment has increased by 322 for all schools and that there has been a decrease in the number of pupils in the first year. In other words, fewer pupils have entered the high school than previously, but those who have entered have been continuing in greater numbers from year to year. The pressing demand for labor and the excessive wages paid, as well as the fact that when the time of entering the high school is reached the period of compulsory attendance is passed, are factors which largely account for this condition.

In this connection a comparison of the persistence of the class of 1918 compared with that of 1917 may be of interest.

TABLE III
PERSISTENCE OF CLASSES OF 1918 AND 1917 COMPARED

	Enrollment	Per cent (1918)	Per cent (1917)
1915, Grade IX.....	19,708	100	100
1916, Grade X.....	12,722	64.5	65
1917, Grade XI	8,577	43.5	47
1918, Grade XII.....	6,922	35.1	32

It will be noted that a greater proportion of eleventh grade pupils became twelfth grade pupils in 1918 than in 1917. The proportions in the other classes remain practically the same.

TABLE IV
PERCENTAGE OF ENROLLMENT BY GRADES

	1914	1915	1916	1917	1918	Massa- chusetts (1917)
Grade IX	44.6	44.4	45.75	44.7	42.6	36.8
Grade X	25.3	24.9	25.42	25.5	26.4	27
Grade XI	16.6	16.7	16.13	17.0	17.3	20.4
Grade XII	13.5	14.0	12.70	12.8	13.5	15.6

The above table shows the distribution of pupils by grades for the past five years, together with a comparison of the distribution for 1917 of the 255 high

schools in Massachusetts. The comparison would at first seem to indicate a somewhat greater retentive power on the part of the Massachusetts high schools, but to fully account for the difference a detailed study of local conditions would have to be made. One of the factors involved would be the relative amounts of technical or practical arts subjects offered, especially in the early years, because of which many pupils enter but do not plan to stay the full four years. In New Jersey an increasing number of two-year vocational, industrial and commercial curricula are being administered, and statistically the effect would be to increase the proportion of pupils in the first year and decrease the proportion in the last two years.

TABLE V

NUMBER OF HIGH SCHOOL BOYS ENROLLED BY COUNTIES

	1917	1918	Incr.	Decr.
Atlantic	725	769	44	
Bergen	1568	1681	113	
Burlington	456	413		43
Camden	835	891	56	
Cape May	193	257	64	
Cumberland	593	624	31	
Essex	5541	5388		153
Gloucester	340	346	6	
Hudson	4251	4125		126
Hunterdon	272	257		15
Mercer	936	910		26
Middlesex	705	792	87	
Monmouth	1222	1208		14
Morris	775	778	3	
Ocean	274	291	17	
Passaic	2063	1955		108
Salem	181	258	77	
Somerset	363	399	36	
Sussex	201	172		29
Union	1573	1647	74	
Warren	390	391	1	
Total	23457	23552	609	514
Difference			95	

From the above table it appears that the decrease in the number of boys enrolled is most marked in the three urban counties of Essex, Hudson, and Passaic, the decrease in these three counties being 387. On the other hand, the increase in enrollment appears in 13 of the 21 counties. Fewer boys have entered the high school this year. What this table does not show is the number of boys who left school to work on farms in the spring. Nevertheless, the number of boys is a suggestion as to the potential boy power in the high schools, either for the Students' Army Training Corps of the colleges, or for the United States Boys' Working Reserve for industry or for agriculture.

SPECIAL STUDIES

In my last year's report figures were given, with some brief comments, showing the number of pupils by years and by sexes who studied languages other than English. These figures showed that 33 per cent of the high school pupils studied Latin and German, the same individuals, however, not necessarily studying both languages. It will be recalled that during the year there was much agitation regarding the immediate dropping of German from the high school program of studies, with the result that many schools eliminated

the language at once, and others voted to organize no new classes in German. This action was encouraged by a resolution of the State Board of Education, as follows:

"The State Board of Education recommends to the boards of education throughout the State that they rigidly exclude from the schools under their administration any teaching of any kind, or any textbook, magazine, newspaper or publication in any language, that in any way, either directly or indirectly, tends to establish German propaganda, or exalts German Kaiserism or Kultur or existing German aims and ideals."

In place of German many schools substituted French and others introduced Spanish. The full effect of the change in sentiment regarding German has not yet appeared. The figures two years hence in comparison with those of 1917 will be of interest.

This year I have undertaken to show the number of pupils studying the different units of the natural and social sciences by years and by sexes. Significant tables follow:

NUMBER OF PUPILS STUDYING THE SOCIAL STUDIES BY SEXES AND BY GRADES

	Grade IX		Grade X		Grade XI		Grade XII		Total
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
Ancient history..	3,629	3,716	744	1,026					9,115
Medieval and modern history			1,021	1,249	352	567	0	5	3,194
English			136	120	641	997			1,894
U. S. history and civics			34	61	297	449	2,137	2,640	5,618
Economics					127	188	400	808	1,563
Community civics	145	224							369
Industrial history	295	317	151	129	169	85			1,146
Total	8,326		4,576		3,972		6,025		22,899
Per cent of grade registration ..	38.2		33.9		44.8		87		44.8

The effect of Bulletin Number 4, "The Teaching of the Social Studies," has begun to be felt in the organization of history and civics. This bulletin recommends the omission of English history as a separate unit of work, and realigns topics under ancient history and medieval and modern history, into two units, viz., early European history, and modern European history. Statistics show that at least 450 pupils study early European history. The fact that the colleges which admit pupils on certificate have not yet recognized the new arrangement of history work accounts for many schools not adopting the proposed plan. The wider acceptance of the comprehensive examination in place of the certificate system for admission to college will result in high schools better adapting their history courses to the needs of high school pupils, and not in studying history for its own sake.

During the past year an increasing number of schools have been vitalizing their history courses by a study of "The Great War," and through the use of the "Lessons in Community and National Life" issued by the U. S. Bureau of Education at Washington. A further aid in making the work in the social sciences relate themselves to the present world crisis has been the circular letter addressed to the teachers of history, given in another part of this report.

From the table given above it is interesting to note that nearly 40 per cent

of the pupils of the ninth grade are studying some unit of the social sciences, and that in the twelfth grade 87 per cent are studying U. S. history and economics, either together or separately.

I am strongly of the opinion that no pupil should be graduated from the high school who has not successfully passed in at least two full years of work—one in what may be called "Community Civics," meaning a study of the elements of social welfare to be found in any community, including the State; and another in the "Problems of American Democracy," to be given in the fourth year. If these two units were prescribed by law and removed from their present position in relation to the course in physical training, where they receive 25 minutes a week each, I am confident that high school pupils would be better informed regarding our social, economic and political institutions, and the ideals which we include under Americanism; and further, that teachers would be more likely to give those phases of history and civics which definitely make for civic intelligence the important consideration they deserve. I respectfully recommend that some legislation looking to this end be enacted.

NUMBER OF PUPILS STUDYING THE NATURAL SCIENCES BY GRADES AND BY SEXES

	Grade IX		Grade X		Grade XI		Grade XII		Total
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
Physical Geography	439	407	137	109					1,092
General science..	4,340	4,166							8,506
Biology	360	502	1,320	1,811			159	210	4,362
Botany			165	257					422
Zoology			145	192	3	16			356
Physiology	72	87	10	6					175
Physics					2,102	1,747	316	352	4,517
Chemistry					763	722	1,489	1,349	4,323
Total	10,373		4,152		5,353		3,875		23,753
Per cent of grade registration ...	47.6		30.7		60.3		56.0		46.7

The above table shows the distribution of pupils studying the sciences, most of which are given in the same school year in each of the schools, botany being the only notable exception.

By a comparison with the figures last collected in 1913 it will be noted that there has been a very marked decrease in the number of pupils studying physical geography, with the reverse true concerning those studying general or introductory science in the first year.

Very few pupils study physiology as a separate study, since this science is treated in the courses in biology.

The large percentage of the eleventh grade studying physics is to be accounted for by the fact that this science is prescribed in most schools, and, with chemistry, it is the subject most frequently offered for entrance to college.

The quality of the science teaching is increasingly good, and in the great majority of schools the laboratory equipment is adequate. There is a marked tendency to make the physics teaching less mathematical and to apply the principles studied to many familiar home and industrial situations.

In chemistry a number of the larger schools offer a differentiated course for the girls, so that the chemistry will supplement and interpret the work in some of the homemaking arts.

Through the cooperation of the active Science Teachers' Association of the State it is hoped that there may soon be adequate bulletins discussing standard methods and equipment, and also giving suggestive outlines of courses in each of the sciences usually taught.

It is to be regretted that astronomy and geology, which were taught fifteen years ago, have been wholly dropped from the program of studies. Some incidental reference is made to these sciences in the general science course.

AGRICULTURE IN THE HIGH SCHOOLS

In 1913, 69 pupils were reported as studying agriculture. In my report for 1916 less than ten districts were listed as teaching the subject. In each instance, save at Freehold, where a four year course was offered, the science of agriculture, through the almost exclusive use of the textbook, received the major part of the emphasis. The art of agriculture, on such a plane as to command the respect of farmers, was given scant attention. This has been a mark of weakness in our agricultural instruction and the subject has hitherto not had the place in the New Jersey high schools which it deserves.

During the past year in connection with the Specialist in Agriculture, Mr. A. K. Getman, and my colleague, Mr. Wesley A. O'Leary, Assistant Commissioner of Education, a study of the situation has been made and definite plans adopted and urged upon boards of education in rural sections where the high schools gave promise of a successful experiment. One difficulty has been to secure sufficient time for participation in and supervision of the agricultural projects. Another has been to secure the time and emphasis upon the other subjects of a high school course which are necessary for a pupil to go on in his agricultural education at the State Agricultural College, by having had a systematic organization of his work in mathematics, science and language as a basis for college work.

Provision has been made under the vocational law in two counties, Atlantic and Cape May, and in one district, Paterson, for vocational schools of agriculture. While these schools paralleled in time the secondary or high school, the organization of the practical work and the distribution of the related academic subjects are such that a boy could not, without great difficulty and loss of time, go on to the higher plane of agricultural education given in the State University. In many instances parents have wished their sons to be high school graduates with the popular and legal advantages which graduates enjoy, and to have, at the same time, a practical knowledge of agriculture as an art, just as in other schools graduates have had carpentry, printing, sewing and cooking, together with systematic instruction in history, mathematics, science, English and foreign languages. This demand has been met in the plans now accepted by the State Board of Education and given to the districts.

Under the Smith-Hughes law federal funds are available for approved instruction in agriculture. Further, the manual training law has been interpreted to include agriculture, so that districts may vote money for manual training to be used for agricultural projects; and just as projects in other forms of practical arts may be a part of a high school curriculum, so also practical agriculture may be included. It is further provided that if a given minimum of time be devoted to agriculture to the end that a pupil may gain

skill for profitable employment, a district may receive Smith-Hughes money. A very distinct advantage of this plan is that the academic subjects of the high school are open to the agricultural pupil and thus he may make preparation for an agricultural college. This is not easily possible in the first type of school described, wherein the same minimum of practical agriculture may be taught but not the other subjects. Moreover, few, if any, districts could afford both types of schools.

High schools offering such an agricultural curriculum leading to an agricultural diploma should also, whenever possible, make provision for part-time classes for those who have left the day schools but who wish to receive specific aid in the art of farming. Such pupils could be placed in the agricultural classes for which they were qualified, if separate sections were not practicable. These special classes would probably be organized during the winter months.

The teacher of agriculture who knows his community will also provide high school extension courses in subjects relating to rural life, and thus, in all his regular and supplemental activities, unite the school with the interests of the community which supports it.

The plans briefly outlined above have been accepted at Freehold, Flemington and Middletown Township, and are under advisement at Woodstown, so that next year a very definite step should be taken toward a practical agricultural education in some of our high schools.

COMMERCIAL TRAINING

In 1916 statistics were collected showing the number of pupils taking the different commercial subjects, and somewhat extensive comments were made upon the status of these units of work in the high schools. At that time it was pointed out that the commercial curricula were of two general types, one specifically vocational, in that it aimed primarily and with short focussed effort to make the pupil competent to undertake a gainful occupation, while the other, through a longer period of training, provided a maximum of those subjects which characterize a broader curriculum, but which at the same time, in addition to a high school education, train the pupil to take a clerical position, such as stenographer or bookkeeper. It was shown that the vocational curriculum could not legally be subsidized by the special State aid for vocational education, and that in other respects the flexibility in the organization of the work was somewhat curtailed.

Since 1916, however, the federal law governing Smith-Hughes funds has been so interpreted—and the interpretation has been accepted by the State Board of Education—that part-time classes in commercial subjects, if organized under the rules of the Federal Board of Vocational Education, may be reimbursed on the same basis as part-time classes in other vocational subjects. Thus far advantage of this interpretation has not yet been taken by any district.

In the development of training for business it is probable that such part-time classes as are contemplated under the Smith-Hughes law would be organized for at least two groups of pupils.

1. Those who are over 14 years of age and who are regularly employed in

some commercial concern and who would return to school sometime during the working day, i. e., between the hours of 8 in the morning and 5 in the afternoon. For such pupils a minimum of 144 hours of classroom instruction a year would have to be given.

2. Those who are taking a full four year commercial curriculum in the high school and who are not placed in a commercial establishment—at least until their senior year. It would seem quite feasible for some of the work of this year to be conducted on a part-time basis, with the same minimum of 144 hours of class work per year in commercial subjects. Pupils in the senior year, however, who were under part-time would have to meet in classes separate from those who were doing the regular high school work, even in the commercial subjects. The part-time pupils would need to constitute a distinct group to receive the advantage of the federal funds. The present rules governing approval of high schools do not make provision for high school credit for outside activities, such as the part-time plan contemplates, but aside from such actual work as was done in the business itself, the high school work would be prorated. A special form of diploma could be devised for those part-time pupils who satisfactorily met all conditions.

Since the statutes governing the preliminary academic qualifications for entering the examinations for the various professions require varying amounts of regular high school work—but usually four years—there is, aside from the question of educational credit to be given to participation in business for compensation, the legal question as to whether earning a livelihood can be interpreted as a part of the education given under public school direction.

It is confidently expected that further study of the possibility of extended commercial education will lead districts to take advantage of the federal subsidy, and thus prepare young people for business careers and at the same time give them the advantage of the broader civic and liberal education which the high school provides.

INTERSCHOLASTIC DEBATING

Interest and enthusiasm for debating have again helped to bring the different high schools into friendly relations with one another, and much good has come to the participants in intellectual and forensic contests. Mr. Ralph Voorhees, of Rutgers College, a member of the Advisory Committee on Debating, reports as follows:

“The war has served to increase rather than decrease the need for interscholastic debating among the secondary schools. The many questions that have been brought to the front by the world conflict have greatly stimulated the study of current history as a part of the work of the history department. The value of oral English has also become more generally recognized as one of the most important parts of the English work. These two recent developments have increased the field of debating in the schools and have led those in charge to give more and more attention to intra- and inter-school debating. This, coupled with the enthusiasm that has been aroused by the growth of Rutgers Interscholastic Debating, has developed a spirit of free public discussion in our high schools which is bound to bear its fruits in the training of our future citizens. Nothing could be more stimulating than to visit some

of these schools and see the splendid work that they are doing along this line, or to attend an interscholastic debate and see the progress that has been made in the last four years.

"Though it was necessary to postpone the first debates from March 1 to March 15 because of the fuel shortage, 44 debates were held on the latter date in various parts of New Jersey and the Hudson River Valley. With the single exception of the Asbury Park-Lakewood debate, the universal military training and service question was the subject debated at all the contests. It is interesting to note that 27 victorious teams were on the affirmative and 19 on the negative side. The visiting teams were supported in almost every case by a good sized cheering section, which added greatly to the spirit of the contests. The approximate attendance at the debates was 20,000, or an average of from 400 to 500 at each contest. That the results might be known as early as possible and the arrangements completed for the final debates, district conferences of the winning teams were held at Dover, Newark, New Brunswick, Asbury Park and Woodbury. All the conference leaders reported that the school representatives were very much pleased with the conduct of their several debates and anticipated even better final contests.

"The final debates in the interscholastic debating program, under the supervision of the Philoclean Literary Society, were held on Friday, April 12, 44 schools participating. In each case the subject was: 'Resolved, That at the close of the present war universal military training should be the fixed policy of the nation.' In twelve of the debates the decision was awarded to the affirmative, in ten to the negative. The winner of each debate was given either a silver loving cup, suitably engraved, or a large scarlet banner with appropriate wording. Following is the list of debates with results:

"Negative winners: South Amboy over Keyport; Irvington over Glen Ridge; Lambertville over Hightstown; Flemington over Bound Brook; Ocean City over Haddon Heights; Troy over Poughkeepsie; Roselle Park over Cranford; Newburgh over Ossining; Westwood over Dumont; Vineland over Glassboro.

"Affirmative winners: Barnegat over Point Pleasant; Palmyra over Haddonfield; Gloucester City over Penns Grove; Nutley over West Orange; Battin (Elizabeth) over Kearny; South Side (Newark) over Plainfield; Atlantic Highlands over Chattle (Long Branch); High Bridge over Hackettstown; Roxbury over Netcong; Hamburg over Sussex; Leonia over Hasbrouck Heights; Boonton over Dover. Asbury Park and Cliffside Park were declared winners by default."

VISITATION OF SCHOOLS AND PHYSICAL TRAINING

The visitation of high schools has been seriously interfered with during the past year because of the uncertain weather conditions and the coal shortage, whereby many schools were closed for periods of varying lengths. More than three-fifths of the time, however, was spent in classroom visitation and conferences on the ground with teachers and principals. Especial attention this year was given to making clear the provisions of the physical training law and helping school officials to give it the place in the weekly program which the different elements of the course require. The provisions of the

Pleasure, recreation and health in the shadow of great industries
MAY FESTIVAL, WORK-STUDY-PLAY SCHOOL, PASSAIC

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law were discussed at each of the county institutes and later the State was covered through a series of all day conferences with supervising principals and superintendents, together with the high school principals and the teachers of physical training. In addition to the discussions, practical demonstration of the work was given.

The Manuals, giving the exercises and the content of the prescribed courses in the informational units, were in the hands of teachers early in the year. Many districts had provided special teachers of physical exercises, and in other districts the regular teachers conducted the classes, in some cases assisted by pupil leaders. On the whole, the work in physical exercise is being well done, and in many cases excellently done. Pupils and teachers alike have felt the benefits of the course, and its reaction on the other subjects of the school, through the increased vital energy of the pupils, has been marked. There is hardly a school that has not some plan in operation for the 125 minutes a week assigned to physical exercise.

Regarding the so-called informational work, which includes community civics, military and patriotic knowledge, problems of American democracy, first aid, domestic hygiene, and the elements of nursing, all of which are as definitely prescribed as the physical exercise, not so favorable a report can be made. Some districts disregarded absolutely this phase of the work, or else treated it in a most incidental way; others—the majority, I am happy to report—made serious efforts to give the topics the attention they deserve.

Part of the neglect was doubtless due to the fact that the teachers had not made preparation to teach the subjects, although in the circulars from this office plans were suggested whereby the complete course could gradually be put into full operation. Evidence is abundant that by September, 1918, the work will have its legitimate place in the weekly program of each high school pupil. The physical training throughout the State will receive a great impetus with the appointment in the fall of a State Director of Physical Training and an assistant for this work. The excellent beginning thus far made has been by untrained teachers.

No one will seriously question the statement that the primary purpose of the tax supported public school is to train the youth of the country to become physically fit and civically intelligent regarding their responsibilities as citizens. The school has a social purpose, and the informational units of the first, second and fourth years is to give definite instruction to this end. The war has re-emphasized the place of public education in the formation of national ideals, and through the administration of the complete physical training course the schools of New Jersey will do much toward meeting their obligation to make the pupils physically fit and to add to their civic intelligence.

THE WAR AND THE SCHOOLS

In common with all social institutions, the schools have been profoundly influenced by the war, and this influence will doubtless assist the schools in many ways more fully to realize their purpose in a democracy. Advantage has been taken of the situation to re-emphasize some phases of school work, notably the social studies—history, economics and civics—and also the work

in English. The following circular letter was sent to all high schools, with a view to aiding teachers in finding suitable material for classroom work.

The schools of the State constitute a powerful unit on the first line of civic defense. The teachers of the schools are loyal public servants, holding sound views regarding the war, and in many schools are teaching these beliefs courageously. To assist in carrying on the war and also to help in the work of reconstruction, both at home and abroad, teachers and pupils alike have a part to play. Their first duty is to become intelligent concerning the causes of the war and the principles underlying the conflict of nations. The creation of civic intelligence, therefore, is one of the prime functions of the tax supported schools. In the furtherance of this end the teachers of English and of the social studies have a special opportunity and responsibility.

President Wilson said, "It is not an army that we must shape and train for war; it is a nation." The nation is looking to its schools with confidence and hope. That the teachers of English may definitely assist, the following suggestions are given:

Collateral reading. As a substitute for some of the books suggested under each half year of work in Bulletin 3, "The Teaching of High School English," there should be taken from current literature and from other sources readings which deal with democratic ideals and with the development of Americanism. Selections from Lincoln, Washington, Webster, Emerson, Lowell and Woodrow Wilson will be especially helpful. Most of the reading, however, should deal with the present crisis, and for that purpose selections from the addresses and writings of the leaders among our allies should be used. Several such collections are available. The following list of material is merely suggestive of what may be used.

1. War Message (April 2, 1917)—President Woodrow Wilson.
2. The Duties of the Citizen (September 14, 1917)—Elihu Root.
3. Flag Day Address (June 14, 1917)—President Wilson.
4. Statement of War Aims of England—Lloyd George.
5. The International Mind: How to Develop It—Nicholas Murray Butler.
6. America's Future at Stake—Secretary Lansing.
7. Why We are at War—Secretary Lane.
8. America, Beacon Light of Peace—Gabriele D'Aununzio.
9. Our Heritage of Liberty—Rene Viviani.
10. War Measures and Purposes—Secretary Baker.
11. Our Responsibilities as a Nation—Theodore Roosevelt.

Teachers will be constantly on the lookout for new and vital expressions of our national aspirations. Much of the above material may be had free upon application to the Committee on Public Information, Washington, D. C.

Oral English. No better period could be had for vigorous and timely discussion of the vital issues of the war than that devoted to oral English. The motivation of the recitation becomes automatic and spontaneous. The content of the work may be taken from the readings suggested above and from current magazine and newspaper issues. Much work of real inspirational as well as technical value is being done in many schools. It should be extended to all.

Among the present day topics of importance is "Thrift," and this may be taught through composition. Definite suggestions as to how this topic may be used through English may be had by addressing this department.

In every instance the schools have responded most enthusiastically to the appeals which have been made to them for help in connection with the Liberty Loans, the sale of Thrift Stamps, Junior Red Cross work, and all other activities which related to winning the war. The schools have not been taken into the war but the war has been brought into the schools, much to their benefit.

With the organization this fall of the Student Army Training Corps in the numerous colleges of the country there will arise new problems of articulation between the high schools and higher institutions, especially for the boys, but in the solution of this and other problems the high school administrations will cooperate as loyally and intelligently as in the past.

I am pleased to note and to commend the splendid spirit of solidarity existing among the secondary schools of the State, and their desire to make these schools more truly a means to the creation of an intelligent and co-operating democracy.

REPORT
ON
INDUSTRIAL AND AGRICULTURAL EDUCATION
By

WESLEY A. O'LEARY

*Assistant Commissioner in charge of Industrial Education including
Agriculture*

(PRINTED AS A SEPARATE DOCUMENT)

THE THIRTY-FIVE YEAR PENSION LAW DECISIONS

PREPARED BY

JOHN ENRIGHT

Assistant Commissioner in charge of Controversies and Disputes

THIRTY-FIVE YEAR PENSION LAW

The first law providing for the pensioning of school teachers in New Jersey was enacted in 1903. It provided that in case a teacher had served in one school district for a period of forty years such teacher may be retired on a yearly pension equal to one-half of the salary received at the time of retirement. This pension was paid out of the funds of the school district in which the teacher had served.

In 1907 the Legislature amended the teachers' pension law by changing the forty years of service formerly required to thirty-five years in the State, the last twenty years of which must have been in one school district, and made the pension one-half of the average salary received during the last five years of service. The district in which such teacher last taught was responsible for the payment of the pension.

The law was further amended, giving to boards of education power to retire a teacher on pension by resolution of the board.

In 1914 the pension law was again amended in very important particulars. First, it provided that the State instead of the school district shall pay all pensions hitherto paid by the districts and all pensions hereafter to be granted. It also provided that of the thirty-five years of actual service as a teacher or superintendent the last twenty-five years must be in the public schools of New Jersey. This act also amended the pension law so as to provide that any teacher who had reached the age of seventy years and whose last twenty years of service had been in this State shall be eligible to retirement under the act; further, that any teacher who had reached the age of seventy-five years and had performed thirty-two years of service in this State shall be eligible to retirement; also, further, that any teacher serving thirty-five years who has heretofore been or shall hereafter be retired or discharged from service and who had reached the age of seventy years shall be eligible to receive a pension and be retired under the act.

The number of new pensioners certified during the school year ending June 30, 1918, was 43. Of these, 8 were men and 35 were women. The aver-

(185)

age pension of the men retired during the year was \$976.97; the average pension of the women retired was \$574.34. The total amount of pensions paid these 43 during the year was \$19,977.10. The total annual pension of these 43 amounts to \$27,917.80.

The law permits application for pension at any time, hence the total annual pension would be greater, as shown in the above, than would be the actual amount that is paid during the year to the new pensioners.

The highest number of years of service was that of a woman who served 53 years. The next highest number of years of service was that of a man who had served for a period of 51 years. The average length of service of all the teachers retired was 39 years.

Of the teachers retired 23 were between the ages of 53 and 59; 15 were between the ages of 60 and 69; five were between the ages of 70 and 94. It is needless to say that the teacher who was 94 years of age was not engaged in active teaching.

The total amount of pensions paid during the year was \$230,466.05.

There were 12 deaths during the year, which leaves the total number of pensioners at the close of the year 418. Of this number 67 are men and 351 are women.

DECISIONS

Following are some of the decisions rendered from December, 1917, to October, 1918:

RECOUNT OF BALLOTS IN SCHOOL ELECTION

PAUL HUECK

Appellant

vs

THE BOARD OF EDUCATION OF THE BOR-
OUGH OF HALEDON

Respondent

DECISION OF THE
COMMISSIONER OF EDUCATION

PAUL HUECK, for himself.

WOOD MCKEE, for the Respondent.

The petitioner in this case was granted a recount of the ballots cast at the election for four members of the Board of Education in the school district of the Borough of Haledon, held on March 21, 1918.

The petition set forth:

First, that a certain form of ballot voted at the election which was attached to the petition was not counted by the tellers.

Second, that the number of these ballots is fourteen and, if counted, would affect the result of the election.

The Board of Education, represented by a Committee, called at the office

of the Commissioner and admitted that fourteen ballots were rejected, and further admitted that if counted they would affect the result of the election, hence a recount was granted. Such recount was made at the office of the Commissioner of Education on Wednesday, April 10, at 11 o'clock, in the presence of a Committee of the Board of Education and its counsel, and the petitioner, Paul Hueck, who represented the appellants.

It was found that the question at issue was the form of a ballot cast by fourteen voters, a copy of which is herein inserted. This ballot was rejected by the tellers.

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:   For Members of the Board of   :
:   Education                      :
:   _____                    :
:
:   PAUL HUECK                    :
:   OTTO WEIDENMULLER             :
:   PETER ESSELMAN                :
:   _____                    :
:
:   For Unexpired Term            :
:   ALBIN WUENSCH                 :
:
. . . . .

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The notices calling the election stated on the usual forms furnished by the State to school districts that there would be an election of four members of the Board of Education.

The ballot prepared by the Board of Education contained the names of three persons under the caption "For three-year term" and one name under the caption "For two-year term." All such ballots were counted. The ballots that were rejected by the tellers contained one name under the caption "For Unexpired Term" and three names not mentioned under any other head than that on the ballot, which heading was, "For Members of the Board of Education." The contention of counsel for the Board of Education is that this ballot should not be counted at all because it did not designate the number of years for which the persons were to serve as members of the Board.

The law provides in regard to ballots that "said ballots may be printed or written, or partly printed and partly written. In case a member of a board of education is to be elected for a full term and a member is to be elected to fill an unexpired term, the ballots shall designate which of the persons voted for is to be elected for the full term and which for the unexpired term."

The law makes no mention of the fact that the number of years for which the person is to be elected shall be stated; the law simply states that there shall be designated those voted for "full term" and those voted for "unexpired term."

The rejected ballot did contain the caption "For Unexpired Term," thus giving the exact words in the law.

In former cases it has been held that when a ballot clearly expresses the intention of the voter it should be counted. The rejected ballots clearly express, in the language of the law, that Albin Wuensch was voted for "For the Unexpired Term" and, therefore, they should be counted. The three names Paul Hueck, Otto Weidenmuller and Peter Esselman were on the same ballot without designation, other than the caption on the ballot itself, which said, "For Members of the Board of Education." It follows that a person voting such a ballot clearly intended, when he designated one person for the unexpired term, that the other three persons must be for the full term, because there were only two terms that could possibly be voted for, namely, in the language of the statute, the "full term" and "the unexpired term." And, further, inasmuch as there were three persons to be elected for the full term and only one person for the unexpired term it is clear that the unexpired term being designated in a printed caption and the other three under the general caption of the ballot, namely, "For members of the Board of Education," that the ballot should be counted in its entirety, as it clearly expresses the intention of the voter. With this decision the recount resulted as follows:

For the full term

Paul Hueck	180
Otto Weidenmuller	180
Peter Esselman	179
Rudolph Hunzicker	167
Albert A. Lydecker, Jr.	168
Herbert Willis	167
Paul Heckt	1
Paul Heck	1

For the unexpired term or, as some of the ballots had it, "For two-year term"

Edgar J. Haskery	166
Albin Wuensch	179
Otto Weidenmuller	1

Paul Hueck, Otto Weidenmuller and Peter Esselman receiving a majority of the votes cast for the full term and Albin Wuensch receiving a majority of the votes cast for the unexpired term are hereby declared legally elected members of the Board of Education of the school district of the Borough of Haledon.

April 22, 1918.

Affirmed by STATE BOARD OF EDUCATION July 13, 1918.

DISMISSAL OF TEACHER UNDER CONTRACT WITHOUT
HEARING

FLORENCE STRAUGHEN

*Appellant**vs*BOARD OF EDUCATION OF THE TOWNSHIP
OF UPPER PENNS NECK*Respondent*DECISION OF THE
COMMISSIONER OF EDUCATION

T. C. HILLIARD, for the Appellant.

MARSHALL H. DIVERTY, for the Respondent.

The appellant in this case, Florence Straughen, was engaged in teaching in the Township of Upper Penns Neck, in the County of Salem, under a contract dated July 24, 1917, and which covered the school year 1917-18. This contract contains the following clause: "It is hereby agreed that either of said parties to this contract may at any time terminate said contract and the employment aforesaid by giving to the other party sixty days' notice in writing of its election to so terminate the same."

Miss Straughen began teaching as principal and teacher under this contract September 10, 1917, in the DuPont School at Penns Grove. About December first the supervising principal notified the teachers in this school where Miss Straughen was acting as principal and teacher that the hours of actual school work would be lengthened fifteen minutes in the morning and fifteen minutes in the afternoon, making the school day one-half hour longer. The teachers in this school, including Miss Straughen, protested that such a day was too long for children in the primary grades. Miss Straughen had an interview with a member of the Board of Education, Edwin Leap, in which she made vigorous protest against the new rule on the ground, as stated in her testimony, that the hours were too long for small children.

Mr. Leap says in his testimony that Miss Straughen had said to him in an interview, "Mr. Leap, if the Board adopted that time I will stay there that time but I will not teach it; I can get lots of work, I will go to the Powder Plant before I will teach the extra time."

Miss Straughen and the other teachers of the DuPont School testified that the rule made by the Board of Education was literally carried out. Programs were arranged to meet the new requirements as to time, and each of them, including Miss Straughen, not only kept the school open for the period of the extended time but actually taught during this time. Parents of the children testified that they had called at the school for their children and found Miss Straughen teaching during this extended period of time. The supervising principal did not call at the school to ascertain whether the teachers were teaching during this extended period. The rule was made at a meeting of the Board on December 4, and according to the testimony the teachers, including Miss Straughen, complied with the rule of the Board thereafter.

On December 17, 1917, a special meeting of the Board of Education of the

school district of Upper Penns Neck Township was held. The following is taken from the minutes of this meeting: "Motion made, seconded and carried that Miss Straughen be asked to resign as principal teacher at the DuPont Schoolhouse immediately." On the 18th of December, after school was dismissed in the afternoon, the district clerk served the following notice on Miss Straughen:

Upper Penns Neck Township, Dec. 17-17.

At a regular called meeting of the Board of Education held at the DuPont School House on December seventeenth it was regular moved and seconded and carried without a dissenting vote that one Florence Straughen be requested to resign the position as Principal and teacher in the DuPont School. Said resignation to take effect on presentation of notice of the same by the clerk of the Board of Education.

I, John B. Layton, Clerk of said Board of Education, do hereby present notice of same as instructed so to do.

JOHN B. LAYTON,
Clerk of Board of Education of the Township of
Upper Penns Neck.

At the hearing held in Salem the minutes of the meeting of December 17 were produced. They show that there was no record of the members of the Board who were present. The district clerk however testified that there were five members present; that the vote taken on the question of the resignation of Miss Straughen was verbal and that the resolution was declared carried by the President.

Edward Summerill, a member of the Board, testified at the hearing that he was present but he did not vote for the resolution because "I don't approve of the motion, don't approve of turning her out without hearing both sides." This motion apparently had not more than four votes to sustain it.

A request for a resignation to take effect immediately is in its essence equivalent to a dismissal of a teacher and, hence, requires a majority vote of the Board to make it legal. In such cases an entry on the records of the meeting of the names of the persons voting has been held essential. In this case there is no entry of names of the persons voting, not even an entry on the minutes of the names of the Board members present. The Board consists of nine members. The testimony shows that there was an affirmative vote on the resolution of only four. This is in conflict with the statute applying in such cases, which reads: "No principal or teacher shall be appointed, transferred or dismissed . . . except by a majority vote of the whole number of members of the Board of Education."

The request for her resignation that was served on Miss Straughen was therefore, not a legal request of the Board. However, Miss Straughen had no way of knowing this. We, therefore, must consider what she did upon receiving the request. She states in her testimony that she asked Mr. Layton if she could not remain until Friday following the Tuesday on which he served the notice on her at the school. He replied, "You see what your notice says."

Miss Straughen says in her testimony that she did not resign. The follow-

ing morning Miss Straughen appeared at the school ready to teach. Joseph W. Wright, Supervising Principal, was also at the school and Mrs. M. McColley, the regular substitute teacher. Some conversation occurred between Mr. Wright and Miss Straughen in regard to her resignation, which resulted in Miss Straughen's leaving her room in the school and Mrs. McColley's taking her place and teaching during the day. On Thursday following Miss Straughen again appeared at the school and entered her name on the time card and found another teacher in her place. This teacher had been engaged by the Board of Education. On Friday morning following Miss Straughen again appeared and entered her name as usual on the time card and left because the school was in charge of another teacher. The following week was the Christmas vacation. Miss Straughen did not appear at the school afterwards.

The question in this case resolves itself into whether Miss Straughen did actually resign. It is admitted that there was no written resignation and there was no meeting of the Board at which her resignation was acted on. So far, therefore, as any action taken by the Board of Education at the time is concerned it does not appear that Miss Straughen resigned either by word or by act. A resignation by a teacher is not effective until accepted by the Board of Education.

I, therefore, find that Miss Straughen was dismissed from her position as teacher in the DuPont School without there having been any charges preferred against her and without giving her a hearing. The only excuse for her dismissal was the conversation that she had with Mr. Leap in which her testimony is different from that given by Mr. Leap. It appears that she did not do what Mr. Leap testifies that she said she would do, that is, leave rather than teach the extra half-hour of time that had been ordered by the Board. She actually did teach the extra half-hour and had been teaching it since the rule was adopted.

I, therefore, find that the resolution of the Board which does not give any reason in itself for requesting a resignation is without excuse to sustain it. I find also that Miss Straughen did not resign and did not leave the school of her own volition. She presented herself at the school on three successive mornings after the notice had been served upon her to resign and was ready to fulfill her contract. I find further that the Board had employed a regular teacher to take her place on the second day after she had been notified to resign and was engaged in actual teaching. Therefore, the provisions of the contract between the Board of Education of Upper Penns Neck Township and Miss Straughen to teach the DuPont School for the year 1917-18 were violated by the Board of Education. The Board is, therefore, answerable to Miss Straughen for the consequences resulting from the breaking of the contract, that is to say, it is responsible for her salary from the date of her dismissal to the end of the school year.

July 2, 1918.

POWER OF A BOARD OF EDUCATION TO COMPEL A TEACHER
UNDER CONTRACT TO TEACH ON SATURDAYS

ELSIE M. CONLEY

Appellant

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BOARD OF EDUCATION OF RARITAN TOWNSHIP,
MIDDLESEX COUNTY

Respondent

DECISION OF THE
COMMISSIONER OF EDUCATION

FREDERIC M. P. PEARSE, for the Appellant.

EDWARD W. HICKS, for the Respondent.

The appellant in this case, Mrs. Elsie M. Conley, was employed as a teacher in the schools of Raritan Township, Middlesex County, under the usual teacher's contract, salary to be paid in equal monthly installments.

In January, 1918, because of lack of fuel, the schools of Raritan Township were closed for seventeen school days. All teachers, including Mrs. Conley, were paid the usual monthly installment for the month of January. In March following the Board of Education decided in order to make up the time lost the schools should be kept open on Saturdays and so informed all the teachers. Mrs. Conley claimed that it was not convenient for her to teach on consecutive Saturdays during the month of March but said she would be willing to teach some Saturdays and on legal holidays in order to make up the time lost. At the end of the month of March she was tendered a check with a deduction of \$8.40, the pay of a substitute for the four Saturdays when school was in session and on which Mrs. Conley did not teach. She refused to accept the check, claiming that she was entitled to the full installment for the month of March as provided in her contract. The question involved here is as to the payment of the salary of the appellant for the month of March. It must be considered by itself. What was done in January cannot have any bearing on the payment to be made in March. If anything happened during the month of March by which there should be a deduction for salary during that month it can have no relation to the things that happened in January. If the schools are closed by reason of epidemic or any other cause that may be unavoidable, such as the shortage of fuel, and teachers are present and ready to serve the school district there can be no deduction made from their salary. The furnishing of proper school facilities, such as having the rooms properly heated, is a duty of the Board and is a matter that lies entirely without the control of the teachers.

The question that arises in this case is, can a board of education compel the appellant to teach on Saturdays and thus make up the time lost in January. It is my opinion that the Board of Education cannot compel a teacher under the contract to teach on Saturdays. The statute law provides "in every such contract, unless otherwise specified, a month shall be considered and taken to be twenty school days or four weeks of five days each." The ap-

pellant thus served during the month of March four weeks of five days each and is entitled to the full monthly installment of salary therefor.

August 1, 1918.

POWER OF A BOARD OF EDUCATION TO COMPEL A TEACHER
UNDER CONTRACT TO TEACH ON SATURDAYS

JOSEPHINE E. CARMAN

Appellant

vs

BOARD OF EDUCATION OF RARITAN TOWNSHIP,
MIDDLESEX COUNTY

Respondent

DECISION OF THE
COMMISSIONER OF EDUCATION

FREDERICK M. P. PEARSE, for the Appellant.

EDWARD W. HICKS, for the Respondent.

The appellant in this case, Mrs. Josephine E. Carman, was employed as a teacher in the schools of Raritan Township, Middlesex County, under the usual teacher's contract, salary to be paid in equal monthly installments.

In January, 1918, because of lack of fuel, the schools of Raritan Township were closed for seventeen school days. All teachers, including Mrs. Carman, were paid the usual monthly installment for the month of January. In March following the Board of Education decided in order to make up the time lost the schools should be kept open on Saturdays and so informed all the teachers. Mrs. Carman claimed that it was not convenient for her to teach on consecutive Saturdays during the month of March but said she would be willing to teach some Saturdays and on legal holidays in order to make up the time lost. At the end of the month of March she was tendered a check with a deduction of \$4.20, the pay of a substitute for the two Saturdays when school was in session and on which Mrs. Carman did not teach. She refused to accept the check, claiming that she was entitled to the full installment for the month of March as provided in her contract. The question involved here is as to the payment of the salary of the appellant for the month of March. It must be considered by itself. What was done in January cannot have any bearing on the payment to be made in March. If anything happened during the month of March by which there should be a deduction for salary during that month it can have no relation to the things that happened in January. If the schools are closed by reason of epidemic or any other cause that may be unavoidable, such as the shortage of fuel, and teachers are present and ready to serve the school district there can be no deduction made from their salary. The furnishing of proper school facilities, such as having the rooms properly heated, is a duty of the board and is a matter that lies entirely without the control of the teachers.

The question that arises in this case is, can a board of education compel the appellant to teach on Saturdays and thus make up the time lost in January. It is my opinion that the Board of Education cannot compel a teacher under

the contract to teach on Saturdays. The statute law provides "in every such contract, unless otherwise specified, a month shall be considered and taken to be twenty school days or four weeks of five days each." The appellant thus served during the month of March four weeks of five days each and is entitled to the full monthly installment of salary therefor.

August 1, 1918.

APPORTIONMENT OF SCHOOL MONEYS FOR TRANSPORTATION

BOARD OF EDUCATION OF THE TOWNSHIP
OF READINGTON

vs

THE COUNTY SUPERINTENDENT OF HUN-
TERDON COUNTY

DECISION OF THE
COMMISSIONER OF EDUCATION

This appeal is taken by the Board of Education of Readington Township, Hunterdon County, because of the refusal of the County Superintendent to apportion three-fourths of the cost of transportation of pupils to high schools from Readington Township. There is no dispute as to the fact that there was transportation of pupils; there is no dispute as to the fact that the Board of Education certified to the County Superintendent on or before the 15th day of March in the year 1918 on blanks furnished for the purpose by the Commissioner of Education "the number of pupils for whom transportation has been provided and the cost thereof" as required by Section 223 of the school law, edition of 1914.

The reason for the refusal of the County Superintendent to apportion money for transportation is based on rules made by the State Board of Education, which read, in part, as follows:

Rule 1. "It shall be the duty of the local board of education to report to the county superintendent on or before August 15 in each year all such high school pupils and such other pupils of elementary grades as may be entitled to transportation."

Rule 3 provides, "that contracts for transportation routes and agreements for individual transportation shall be filed with the county superintendent of schools for approval on or before September 1st in each year and shall be accompanied by a certified copy of the minutes of the board of education authorizing the same."

These rules were not observed by the Readington Board of Education for the school year 1917-18.

The law pertaining to apportioning moneys for transportation reads as follows:

"The county superintendent of schools shall on or before the first day of April in each year apportion to the several school districts of said county . . . seventy-five per centum of the cost of transportation of pupils to a public school or schools; provided, that, subject to appeal as provided in section ten of the act to which this act is an amendment the necessity for the transportation and the cost and method thereof shall have been approved by

the county superintendent of schools of the county in which the district paying the cost of such transportation is situate."

The above law was enacted in 1912. The rules of the State Board of Education pertaining to transportation were enacted in June, 1916. It is very clear that a statute law takes precedent of any rules made by the State Board of Education. It will be further noted that the rules of the State Board of Education are directory in their application while the statute law is mandatory. The statute law provides that the county superintendent of schools "shall apportion the school moneys" and also determines the time and the manner of certifying the facts to the county superintendent on which he bases his apportionment to the school district.

It is not denied by the County Superintendent that all the statutory requirements were met by the Board of Education of Readington Township. He bases his refusal to apportion money wholly on the grounds of a non-compliance of the Board with the rules of the State Board of Education. He does not aver that there is no necessity for transportation; he does not dispute the cost of transportation; he does not question the method of transportation, all of which he has a right to do under the statute law.

The contention he makes is that he had no means furnished him by the Board of Education of approving the contracts or agreements made for transportation by September 1st of the then current school year as provided by the rules of the State Board of Education. In other words, because the Board of Education did not comply with the rules, there was wanting the information from which he could at the beginning of the school year determine whether the cost was fair and just, and whether the method was a proper one, or whether there was necessity for the transportation at all.

The County Superintendent under paragraph III of section 30 of the school law has power to advise with and counsel boards of education in relation to their duties. It is his duty to instruct boards of education as to their full duties in carrying out the provisions of the school law and the rules and regulations of the State Board of Education. It is his duty to supervise all school matters in his county; it is his privilege to have full and complete knowledge of all the school affairs of his county and especially to instruct boards in their obligations in carrying out the provisions of the school law and the rules of the State Board of Education. It is also his duty to examine into methods of transportation. He cannot regulate the cost of transportation but if in his judgment he thinks the cost is excessive he may refuse to apportion three-fourths of such excessive cost.

In this case the cost of transportation was furnished him in accordance with the statute law on or before March 15 and it is at that time that he may pass upon the cost or the method or the necessity for it.

If a board of education has furnished transportation without his knowledge, or consent, and upon examination into the cost he finds that it is excessive he may refuse to apportion moneys because of the excessive cost or because of other statutory reasons, but it follows that he cannot refuse to apportion the moneys on any other grounds. He cannot refuse to apportion moneys because of a non-compliance with a rule of the State Board of Education which requires information to be given him on these points by September 1st of the school year. Very much of the cost cannot be wholly determined

at that time. Especially is this true in the case of railroad transportation, which may be begun later than September 1. This is also true in the case of transportation by trolley.

The rules of the State Board of Education in this case are directory and carry with them no penalty. They however should be observed so far as practicable and if not observed there is a penalty which is provided for in the general school laws. They surely cannot be tortured into meaning that a school district shall be penalized by withholding the whole of the lawful apportionment due the district if the district clerk neglects to comply with their requirements.

I am clearly of the opinion that it was the statutory duty of the County Superintendent to apportion to the Readington school district three-fourths of the cost of transportation as certified by the Board to the County Superintendent on or before March 1, 1918.

September 23, 1918.

(Appeal now pending before State Board of Education.)

DEMOTION AND REDUCTION OF SALARY OF TEACHER UNDER TENURE

WILLIS MEYERS

Appellant

vs

BOARD OF EDUCATION OF THE TOWNSHIP
OF READINGTON, HUNTERDON COUNTY

Respondent

DECISION OF THE
COMMISSIONER OF EDUCATION

GEORGE H. LARGE, for the Appellant.

CLARENCE E. CASE, for the Respondent.

The Appellant in this case, Willis Meyers, has been in the employ of the Board of Education of the Township of Readington, Hunterdon County, the Respondent in this case, for the past six years. He, therefore, comes under what is known as the tenure of service act. He served during this time as the principal teacher in a two-room school at Whitehouse.

In 1916 the school district of the Township of Readington voted to construct a new schoolhouse at Whitehouse to accommodate the children attending the schools at Whitehouse and Whitehouse Station. The Board of Education at the annual meeting for the election of teachers held in the summer of 1917 elected the Appellant as principal teacher of the proposed new consolidated school at a salary of \$85 per month. The new school because of unavoidable delays was not completed during the school year of 1917-18.

Mr. Meyers continued as principal teacher in the Whitehouse school the same as formerly and received \$85 per month, as per agreement, as principal teacher. The Board of Education in the summer of 1918 tendered Mr. Meyers the position of principal teacher of the fifth and sixth grades of the

consolidated school at a salary of \$70 per month. The tender of this position and salary was declined by the Appellant, who claimed that under the tenure of service act he was entitled to the position of principal teacher in the new school, a position which he had occupied for the past six years in the old school.

The two questions that present themselves in this case are, first, was there a reduction of the salary of the Appellant and, second, was the offer of principal teacher in the fifth and sixth grades a demotion.

The Appellant had served the year 1917-18 at a salary of \$85 a month. His services during that year were rendered as the principal teacher in a two-room school teaching the higher grammar school grades, which include the seventh and eighth grades. This must be considered separate and apart from any agreement which had been made for services as principal of the proposed consolidated school. In this position a salary of \$85 a month was paid. The Appellant was at the time under the operation of the teachers tenure of service act. A notice to him that his salary for the following year would be \$70 a month instead of \$85 was plainly a reduction of his salary.

Second, that he was to serve as the principal teacher of the fifth and sixth grades was a most unusual proposition. There was, therefore, not only a reduction of salary but there was also a reduction of position. In a school of eight grades there is no such thing as a principal teacher of the fifth and sixth grades. The principal teacher must be a position calling for supervision of all the grades either directly or indirectly. The principal teacher is responsible for making out the reports required by law for the whole school. The principal teacher can alone suspend pupils and exercise other authority for the whole school. I find there was, therefore, not only a reduction of the Appellant's salary contrary to law but there was also a demotion in his position by assigning him to the fifth and sixth grade work.

My conclusion is that the Appellant, Willis Meyers, being under the operation of the tenure of service act could not have his salary reduced, neither could he be demoted in grade without first giving him a hearing on charges regularly made. He should, therefore, be restored to his position as principal teacher in the new school at Whitehouse at a salary of \$85 per month, to run from the beginning of the opening of school in September, 1918.

October 19, 1918.

CHANGING OF BEGINNING POINT OF TRANSPORTATION ROUTE

FREDERICK L. JOHNSON

*Appellant**vs*BOARD OF EDUCATION OF THE TOWNSHIP
OF READINGTON, HUNTERDON COUNTY*Respondent*DECISION OF THE
COMMISSIONER OF EDUCATION

GEORGE H. LARGE, for the Appellant.

CLARENCE E. CASE, for the Respondent.

The Petitioner in this case is Frederick L. Johnson, a citizen and resident of Readington Township, Hunterdon County. Appeal is taken because of the action of the Board of Education in awarding to C. J. Hauck a contract to transport school children to the Flemington High School for \$993.50, which award is claimed to be not in full accordance with an advertisement for proposals.

The advertisement reads as follows: "The Board of Education of Readington Township will receive bids for transportation of scholars to Flemington High School as follows: Starting at the Pleasant Run store, thence to Stanton store, return to macadam road, thence to Flemington High School and returning by same route at close of school."

The Appellant resides at Stanton and has children to be transported. No question is raised by him in regard to the award of the contract to the lowest bidder. The Appellant claims that instead of starting at Pleasant Run and thence proceeding to Stanton and from Stanton returning to the main road to Flemington as provided in the advertisement, the contract was let to start at Stanton and proceed to Pleasant Run, returning to the main road to Flemington. The claim made by the Appellant is that whereas there is one child near the Pleasant Run store, the advertised starting point, there are six at Stanton and vicinity. The distance from Stanton to Pleasant Run store is about three miles and the point of intersection with the main road to Flemington is about half way. Thus, there would be necessity for six children to pass over one and a half miles each way, making a ride of three miles for them, whereas if the vehicle started at Pleasant Run store as advertised there would be one child only who would have to ride a distance of three miles. In former years the route of travel started at the Pleasant Run store. This year the lowest bidder, bidding about \$200 less than any other bidder, lives in the vicinity of Stanton. The Board of Education claims because of the saving of some \$200 the route was changed only as to the point of starting.

The question therefore involved is, shall the Board of Education compel the lowest bidder to leave his home at Stanton, traverse the three miles to Pleasant Run for the one child and with it return to Stanton for the six who live in the vicinity of Stanton? This, of course, would not be acceptable to Mr. Hauck and the contract would have to be awarded to the next lowest bidder, Clarence Cole, whose proposal was \$200 more than that of Mr. Hauck.

It does not appear that the Board was in any way prejudiced in awarding the contract to the lowest bidder and permitting him to begin his transportation at Stanton instead of at Pleasant Run. Transportation is costly at best. It seems to me therefore that the Board of Education exercised sound judgment in saving to the school district some \$200 in the matter of the transportation of seven children.

The Board of Education claims that it is not bound by the law to advertise for proposals at all; that it may reject all bids offered and award the contract without advertisement. This is quite true. All Boards of Education acting under Article VII of the school law are at liberty to advertise, or not, as they choose. Having advertised, however, a Board of Education ought to conform as nearly as possible in the award of the contract to the conditions of the advertisement. In this case the route was not changed in awarding the contract; the only change made was the point of starting the vehicle. This, in my judgment, is not a material matter. I, therefore, conclude that the business judgment of the Board of Education cannot in this case be interfered with.

The appeal is dismissed.

October 22, 1918.

PART III

SECTION A

FINANCIAL AND OTHER STATISTICS BY COUNTIES

For the year ending June 30, 1918

(201)

TABLE I
CURRENT EXPENSE FUNDS.

RECEIPTS FROM STATE AND COUNTY FUNDS FOR CURRENT EXPENSES.

COUNTIES.	From \$250,000 State School Fund Appropriation.	From State School Tax to Re-duce State School Tax.	From 90% State School Tax.	From 10% State School Tax Reserve Fund.	From Interest on Surplus Revenue.	From Reapportioned Balances.	Total Receipts During the Year from State and County Current Expense Fund.
Atlantic	\$7,185 26	\$4,468 47	\$294,176 18	\$22,688 24	\$534 18	.....	\$329,050 32
Bergen	18,735 85	5,802 50	382,000 54	42,444 51	1,795 08	.....	450,778 48
Burlington	5,484 85	1,374 63	90,497 28	32,065 27	4,363 96	\$460 00	134,236 09
Camden	12,763 02	3,967 84	261,218 14	29,024 24	1,529 71	.....	308,502 95
Cape May	1,978 98	1,409 46	92,790 18	8,310 02	750 00	.....	105,238 64
Cumberland	5,510 44	1,045 88	68,854 44	31,650 49	1,766 13	.....	108,827 38
Essex	55,148 20	24,245 74	1,596,188 52	153,354 28	.....	.....	1,823,986 74
Gloucester	3,702 83	1,098 98	72,349 67	14,038 85	1,811 50	.....	93,001 83
Hudson	49,205 11	22,295 71	1,467,810 67	188,080 07	.....	.....	1,677,401 56
Hunterdon	2,636 29	820 97	**54,207 43	18,006 27	.....	.....	75,669 96
Mercer	10,805 95	4,597 09	302,643 76	33,627 09	870 62	.....	352,044 51
Middlesex	11,066 47	3,390 14	223,185 88	24,798 43	.....	.....	262,440 92
Monmouth	9,416 02	4,252 07	279,929 50	29,103 28	2,375 50	.....	324,976 37
Morris	6,430 13	*2,113 08	139,046 13	15,449 57	3,600 00	.....	166,638 91
Ocean	1,954 18	841 65	55,408 89	6,156 54	904 10	.....	65,265 36
Passaic	21,556 64	7,358 07	484,408 27	53,823 25	1,168 38	.....	568,315 61
Salem	2,666 26	1,054 58	69,426 86	7,714 09	2,059 46	.....	82,961 25
Somerset	3,834 41	1,374 72	90,503 25	10,055 92	2,809 09	.....	108,637 39
Sussex	2,181 66	832 46	58,085 49	6,455 05	2,321 34	.....	69,936 00
Union	14,191 71	6,581 18	433,263 83	42,140 43	.....	.....	496,177 15
Warren	3,545 75	1,025 78	67,531 18	12,503 46	.....	.....	84,606 17
Total	\$250,000 00	\$100,001 00	\$6,583,537 19	\$731,486 35	\$28,159 05	\$460 00	\$7,693,643 59

*Overpaid clerk \$1.00.

**Carried over \$160.01 from last year on account difference in estimated and real expenses transportation Readington township.

TABLE 1—Continued
CURRENT EXPENSE FUNDS.
RECEIPTS FROM DISTRICT TAXES, RAILROAD TAX AND OTHER SOURCES FOR CURRENT EXPENSE.

COUNTIES.	Balance on Hand Beginning of Year in State and County Current Expense Funds.	Total Receipts During the Year and Balance on Hand Beginning of Year.	From District Taxes for Current Expense.	From Railroad Tax.	From Other Sources			For Current Expenses.		
					A—Interest on Deposits.	B—Sale of Books.	C—Defacement of Property.	D—Tuition Fees.	E—Return Premiums Fire Insurance.	
Atlantic	\$329,060 32	\$238,154 95	\$133,031 88	\$3,724 95	\$52 47	.....	\$6,382 26	\$42 33	
Bergen	450,778 48	1,007,078 04	172,747 68	5,340 84	546 23	\$70 76	73,923 03	\$12 67	
Burlington	134,236 09	233,122 98	40,924 58	833 34	85 02	7 77	33,437 61	.....
Camden	308,502 95	606,759 36	118,127 65	1,576 03	10 14	39 48	28,259 50	29 62	
Cape May	105,238 64	56,344 79	41,961 42	1,176 88	221 68	.....	4,773 93	.....
Cumberland	109,227 38	201,592 14	31,137 24	410 16	22 98	7 20	9,462 00	161 48	
Essex	1,823,936 74	2,666,677 07	721,925 82	16,217 43	464 91	512 08	21,708 45	558 53	
Gloucester	93,001 83	149,326 25	32,717 86	391 28	53 56	14 49	24,023 37	27 16	
Hudson	1,677,401 56	1,684,517 70	663,771 00	6,950 90	507 19	463 83	39,969 75	430 90	
Hunterdon	77,406 96	106,992 13	24,441 24	80 10	3 50	23 92	22,524 61	.....
Mercer	352,044 51	422,798 93	136,861 08	3,339 10	21 22	478 04	13,901 43	.....
Middlesex	262,440 92	547,400 38	100,928 77	2,128 62	22 26	10 32	28,248 78	18 82	
Monmouth	324,976 37	366,625 84	126,589 27	2,836 38	21 96	2 00	42,748 33	21 97	
Morris	166,638 91	318,639 61	62,879 22	3,128 03	147 99	61 91	24,061 93	33 26	
Ocean	65,265 36	87,079 12	25,056 92	412 81	23 43	.....	8,561 43	.....
Passaic	568,315 61	691,293 07	219,058 79	2,252 50	467 56	247 13	19,568 75	381 96	
Salem	82,861 25	113,582 15	31,696 10	95 37	2 00	.....	13,126 14	300 52	
Somerset	108,637 39	177,496 96	40,927 23	1,098 43	236 46	110 19	16,775 67	.....
Sussex	69,936 00	103,036 70	26,271 85	3,14 93	6 25	28 19	13,571 85	7 50	
Union	496,177 15	581,099 80	196,929 89	3,324 36	419 42	28 14	21,513 82	171 58	
Warren	84,606 17	123,781 50	30,538 83	339 84	2 21	76 08	19,049 46	26 00	
Total	\$2,137 00	\$7,696,780 59	\$10,481,449 47	\$3,977,524 32	\$55,972 28	\$3,338 54	\$2,181 63	\$485,580 59		\$2,529 35

TABLE 1—Continued
CURRENT EXPENSE FUNDS.
RECEIPTS FROM DISTRICT TAXES, RAILROAD TAX AND OTHER SOURCES.—Continued.

COUNTIES.	From all Other Sources for Current Expense Not Cov- ered by Columns A, B, C, D, E.					Total Receipts During the Year from District Tax, Railroad Tax and Other Sources for Current Ex- pense.		Balance on Hand Beginning of Year in District Tax, Railroad Tax and Other Sources for Current Ex- pense.		Total Receipts During the Year and Balance on Hand Beginning of Year; District Tax, Railroad Tax and Other Sources.		Grand Total of Receipts During the Year and Bal- ance on Hand Beginning of Year for Current Ex- pense.	
Atlantic	\$356 05	\$381,744 89	\$35,188 84	\$416,933 73	\$745,984 06								
Bergen	30,566 48	1,290,585 73	215,073 75	1,505,659 48	1,956,437 96								
Burlington	1,897 93	310,309 23	21,936 82	332,246 05	466,482 14								
Camden	3,621 00	758,422 78	64,817 72	823,240 50	1,131,743 45								
Cape May	3,268 06	107,746 76	30,339 15	138,085 91	243,324 55								
Cumberland	3,295 15	246,088 35	43,661 89	289,750 24	398,977 62								
Essex	17,560 54	3,445,624 88	290,515 86	3,736,140 74	5,566,077 48								
Gloucester	3,419 23	209,973 20	24,869 23	234,842 43	327,844 26								
Hudson	56,265 00	2,462,876 27	141,180 60	2,594,056 87	4,271,453 43								
Hunterdon	5,193 04	158,258 54	12,202 96	170,461 50	247,808 46								
Mercer	12,941 13	590,340 93	26,367 69	615,708 62	967,763 13								
Middlesex	3,132 89	681,890 84	54,383 73	736,279 57	998,720 49								
Monmouth	1,650 47	539,496 22	76,170 88	615,667 10	940,643 47								
Morris	1,472 82	410,469 77	61,868 07	472,337 84	638,976 75								
Ocean	299 76	121,433 47	21,934 99	143,368 46	208,633 82								
Passaic	3,748 00	937,017 76	44,942 01	981,959 77	1,550,275 38								
Salem	1,744 32	180,545 60	9,762 07	170,307 67	263,263 92								
Somerset	5,734 12	242,379 06	14,902 76	257,281 82	365,919 21								
Sussex	472 39	143,709 16	22,217 07	165,926 23	235,803 23								
Union	5,105 50	807,592 51	94,883 65	902,476 16	1,398,653 31								
Warren	6,288 33	180,102 34	13,604 68	193,707 02	278,313 19								
Total	\$168,032 21	\$14,176,608 29	\$1,319,829 42	\$15,496,437 71	\$23,192,213 30								

TABLE I—Continued
CURRENT EXPENSE FUNDS.

PAYMENTS FROM CURRENT EXPENSE FUNDS.

COUNTIES.	COUNTRIES.							
	Salaries of Superintendents, Supervisors, Principals, and Teachers and Amount Paid to State Treasurer for Retirement Fund.	Salaries of Janitors, Engineers and Firemen.	Fuel.	Transportation of Pupils to Other Districts.	Transportation of Pupils Within the District.	Tuition Fees.	Expense of Superintendent, Supervisors, Principals and Teachers.	Salary Helping Teacher.
Atlantic	\$495,201 25	\$42,535 35	\$33,499 63	\$11,660 67	\$14,421 50	\$5,719 53	\$6,322 20	\$1,400 00
Bergen	1,149,114 68	123,906 85	79,249 20	21,749 48	7,124 10	70,938 74	7,856 00	2,800 00
Burlington	265,413 90	22,622 06	22,944 09	19,341 27	27,830 54	23,370 75	345 99	3,175 00
Camden	728,919 68	83,363 90	46,066 92	9,880 65	5,578 13	31,001 37	4,227 66	1,500 00
Cape May	129,403 07	14,580 72	11,754 53	6,937 72	9,850 73	5,253 96	1,226 89	1,400 00
Cumberland	229,966 87	17,387 84	18,868 55	6,906 58	22,103 69	7,340 50	772 63	1,300 00
Essex	3,837,701 63	321,819 50	170,991 62	3,789 51	14,194 27	6,284 43	13,353 53	1,500 00
Gloucester	180,305 00	16,372 37	15,696 66	15,370 41	3,303 91	22,867 75	836 31	1,300 00
Hudson	3,071,603 25	293,961 74	179,168 63	5,310 59	3,781 16	34,236 25	8,180 22	.....
Hunterdon	126,593 35	7,286 56	11,300 44	22,197 90	2,503 20	25,403 69	138 53	3,000 00
Mercer	650,778 71	59,312 00	43,457 60	6,938 75	21,712 66	14,619 00	4,023 07	.....
Middlesex	629,702 84	55,013 82	44,674 27	16,848 17	17,442 29	34,870 60	5,011 20	.....
Monmouth	554,047 50	56,184 22	43,713 99	23,724 53	20,459 61	44,406 91	2,461 41	1,500 00
Morris	360,475 77	30,755 61	27,688 74	20,540 80	23,468 02	22,909 50	1,688 25	1,508 20
Ocean	110,788 51	8,883 41	8,752 01	12,164 71	10,659 15	8,687 47	373 40	1,300 00
Passaic	1,141,355 52	101,915 75	56,124 34	5,938 45	7,315 83	20,610 09	3,120 44	.....
Salem	134,287 47	11,653 97	12,297 60	13,344 49	10,469 86	13,203 21	228 20	1,400 00
Somerset	220,118 20	17,133 49	19,085 90	14,805 27	9,105 65	22,158 84	1,031 22	1,500 00
Sussex	114,407 41	5,925 58	97,645 57	21,407 62	8,471 74	16,557 80	488 66	1,400 00
Union	921,119 80	96,672 20	65,787 31	2,616 85	2,811 07	10,344 50	7,000 79	1,300 00
Warren	155,821 13	11,102 27	13,864 00	18,350 88	7,084 86	17,831 75	316 94	3,000 00
Total	\$15,197,125 54	\$1,407,379 21	\$934,750 60	\$279,825 30	\$249,701 97	\$458,615 64	\$69,003 59	\$30,283 20

TABLE 1—Continued

CURRENT EXPENSE FUNDS.

PAYMENTS FROM CURRENT EXPENSE FUNDS.—Continued.

COUNTIES.	County Truant Officer.	Text Books.	Supplies and Other Ex- penses of Instruction.	Apparatus Purchased with Current Expense Funds.	Janitors' Supplies.	Light, Water and Power.
Atlantic	\$15,049 83	\$21,291 28	\$3,338 63	\$5,074 35	\$5,533 21
Bergen	38,033 50	54,774 00	11,419 94	14,672 21	21,578 23
Burlington	\$500 00	10,411 27	15,359 92	1,802 97	1,845 83	2,635 41
Camden	33,782 74	52,595 13	1,796 76	6,143 75	7,116 47
Cape May	5,792 53	6,107 96	1,315 86	1,036 36	1,610 69
Cumberland	12,286 72	14,618 85	2,239 31	2,625 22	2,496 32
Essex	80,866 49	166,228 92	21,549 89	26,908 64	61,773 13
Gloucester	8,626 80	10,325 49	917 63	1,798 44	1,566 87
Hudson	69,068 19	105,367 20	7,472 82	29,476 72	38,350 39
Hunterdon	5,341 39	7,083 41	969 80	803 88	856 97
Mercer	19,654 18	22,552 79	2,897 62	3,892 73	4,767 88
Middlesex	24,061 02	26,608 67	5,518 30	7,248 32	6,144 22
Monmouth	1,550 00	17,362 83	27,103 07	2,361 09	5,927 06	9,561 04
Morris	13,116 86	20,255 05	6,025 83	2,500 77	4,698 61
Ocean	3,306 21	6,899 09	1,722 16	1,071 36	659 22
Passaic	26,432 11	36,350 44	2,966 79	9,541 41	15,825 14
Salem	8,721 49	8,027 45	660 25	1,185 58	743 30
Somerset	6,982 76	8,811 73	1,686 12	1,784 79	3,348 71
Sussex	5,475 04	5,827 98	188 37	536 80	724 85
Union	28,782 85	50,133 54	5,231 39	11,075 79	18,917 95
Warren	7,070 70	8,138 66	1,187 53	1,300 67	2,137 20
Total	\$2,050 00	\$440,144 51	\$674,430 63	\$83,269 10	\$136,498 63	\$211,100 86

TABLE 1—Continued
CURRENT EXPENSE FUNDS.
PAYMENTS FROM CURRENT EXPENSE FUNDS.—Continued.

COUNTIES.	Medical Inspection, Salaries, Supplies and Other Expenses.		Compulsory Attendance, Salaries, Supplies and Other Expenses.		Salary of District Clerk or Secretary.		Salary of Custodian of School Moneys.		All Other Salaries, Supplies and Other Expenses of Board of Education and Business Offices.		County Supervisor of Child Study.	
Atlantic	\$13,141 61	\$5,119 26	\$5,191 48	\$1,306 93	\$2,012 52	.....	\$1,850 00	\$2,012 52	.....	.....	.....
Bergen	19,722 76	11,870 44	17,346 54	4,178 13	14,737 73	.....	.....	14,737 73	.....	.....	.....
Burlington	6,218 64	2,456 56	4,164 93	1,585 00	2,410 65	.....	.....	2,410 65	.....	.....	.....
Camden	13,428 87	6,379 20	7,263 75	1,317 87	10,755 10	.....	.....	10,755 10	.....	.....	.....
Cape May	3,725 97	1,840 25	2,647 66	851 99	4,783 87	.....	.....	4,783 87	.....	.....	.....
Cumberland	3,559 54	1,432 25	2,552 50	625 00	1,826 36	.....	.....	1,826 36	.....	.....	.....
Essex	72,981 54	32,348 76	18,286 14	1,487 50	112,508 64	.....	.....	112,508 64	.....	.....	.....
Gloucester	5,414 46	1,774 58	3,496 91	780 00	1,172 21	.....	.....	1,172 21	.....	.....	.....
Hudson	59,756 54	44,215 53	16,096 30	3,441 54	29,438 26	.....	.....	29,438 26	.....	.....	.....
Hunterdon	1,403 00	447 59	2,693 24	711 00	1,546 13	.....	.....	1,546 13	.....	.....	.....
Mercer	14,995 78	6,161 24	5,763 50	1,650 00	8,517 51	.....	.....	8,517 51	.....	.....	.....
Middlesex	8,443 53	3,445 68	6,824 17	3,041 93	3,544 98	.....	.....	3,544 98	.....	.....	.....
Monmouth	10,768 07	5,347 16	8,507 25	2,094 96	4,665 98	.....	.....	4,665 98	.....	.....	.....
Morris	9,573 57	4,330 17	5,726 51	2,379 21	2,418 72	.....	.....	2,418 72	.....	.....	.....
Ocean	2,217 44	831 95	1,734 70	697 50	779 91	.....	.....	779 91	.....	.....	.....
Passaic	8,963 05	10,182 12	6,969 17	2,048 30	12,799 87	.....	.....	12,799 87	.....	.....	.....
Salem	2,361 27	825 00	2,012 56	565 00	1,165 33	.....	.....	1,165 33	.....	.....	.....
Somerset	4,057 09	2,336 12	3,005 84	1,114 83	2,161 10	.....	.....	2,161 10	.....	.....	.....
Sussex	2,953 49	960 81	2,369 93	690 00	1,152 20	.....	.....	1,152 20	.....	.....	.....
Union	17,455 49	8,670 50	11,271 25	1,263 50	12,987 63	.....	.....	12,987 63	.....	.....	.....
Warren	3,563 75	1,077 86	3,149 75	748 79	1,171 19	.....	.....	1,171 19	.....	.....	.....
Total	\$284,703 56	\$152,093 03	\$137,074 08	\$32,577 93	\$232,555 89	\$1,850 00		\$232,555 89			\$1,850 00	

TABLE 1—Continued
CURRENT EXPENSE FUNDS
PAYMENTS FROM CURRENT EXPENSE FUNDS.—Continued.

COUNTIES.	Insurance Premiums.	Wages of Other Employees.	Lectures and Recreation.	For Evening Schools, Sec. 174. 1914 Edition.	
				Salaries Supervisors, Principals and Teachers.	All Other Salaries, Supplies and Expenses.
Atlantic	\$5,127 72	\$10,346 38	\$1,099 56	.....	.....
Bergen	16,961 35	3,499 75	3,163 43	\$3,191 55	\$113 36
Burlington	2,762 77	1,401 93	25 00	80 00	.....
Camden	11,176 58	907 84	284 90	3,690 50	333 46
Cape May	2,872 93	586 56	212 57	240 00	.....
Cumberland	2,005 25	1,141 32	.....	760 00	.....
Essex	13,045 51	12,379 17	\$1,758 60	83,912 75	17,914 29
Gloucester	1,607 38	1,212 55	95 51	.....	.....
Hudson	28,098 02	32,482 22	20,498 77	27,755 00	3,949 66
Hunterdon	1,011 74	879 32	.....	.....	.....
Mercer	5,956 00	4,968 41	125 35	10,312 50	3,107 95
Middlesex	5,204 30	1,366 69	2,003 66	2,397 66	565 90
Monmouth	7,171 87	2,650 23	2,747 81	876 00	310 22
Morris	5,304 95	2,632 35	1,295 95	2,043 00	237 48
Ocean	729 81	730 05	200 23	.....	.....
Passaic	10,179 72	4,890 35	392 85	10,898 24	2,210 71
Salem	1,222 46	694 63	31 55	.....	.....
Somerset	930 57	1,049 81	455 00	.....	.....
Sussex	648 56	1,915 63	180 00	.....	.....
Union	8,306 14	1,746 45	1,533 96	9,428 50	1,778 40
Warren	1,296 87	1,846 67	13 60	.....	.....
Total	\$131,620 51	\$89,318 31	\$66,128 40	\$156,076 70	\$30,521 43

TABLE I—Continued
CURRENT EXPENSE FUNDS.
PAYMENTS FROM CURRENT EXPENSE FUNDS.—Continued.

COUNTIES.	Special Summer Schools.		All Other Salaries, Supplies and Expenses.	Interest on Temporary Loans.	Telephone Service.	Incidental Expenses.	Total of Current Expense Expenditures During the Year.	Total Balance in Current Expense Account at Close of Year.	Grand Total of Current Expense Expenditures During the Year, and Balance on Hand at Close of Year.
	Salaries Supervisors, Principals and Teachers.								
Atlantic .....	.....	.....	.....	\$1,306 81	\$310 85	\$2,730 51	\$708,795 05	\$37,189 00	\$745,984 05
Bergen .....	.....	\$5 40	.....	4,529 14	4,812 48	4,502 77	1,716,181 77	240,266 19	1,956,437 96
Burlington .....	.....	.....	.....	1,673 56	678 27	877 40	431,929 71	34,552 43	466,482 14
Camden .....	.....	.....	.....	8,901 69	1,411 92	2,877 44	1,080,702 23	51,041 17	1,131,743 45
Cape May .....	.....	.....	.....	153 20	60 00	1,794 45	216,040 47	27,284 08	243,324 55
Cumberland .....	.....	.....	.....	1,751 92	499 26	320 03	355,852 50	43,126 12	398,977 62
Essex	456 00	.....	.....	2,797 60	6,856 47	9,389 04	5,217,861 77	347,715 71	5,565,577 48
Gloucester	64,350 09	10,384 01	.....	674 32	423 24	2,838 25	298,677 05	29,167 31	327,844 26
Hudson	32,326 67	13,305 18	.....	9,907 83	4,271 79	34,982 49	4,206,491 96	64,966 47	4,271,458 43
Hunterdon .....	.....	.....	.....	849 51	179 07	6,371 89	229,571 61	18,296 85	247,868 46
Mercer	7,087 26	638 50	.....	950 66	2,115 96	2,715 11	929,681 72	38,071 41	967,753 13
Middlesex	1,410 50	161 40	.....	2,574 34	1,281 19	2,157 63	928,067 38	70,653 11	998,720 49
Monmouth	87 50	.....	.....	1,218 60	1,318 26	2,841 56	862,815 73	77,827 74	940,643 47
Morris .....	.....	.....	.....	1,368 13	1,525 21	1,578 50	576,036 76	62,940 99	638,976 75
Ocean .....	.....	.....	.....	503 00	190 33	113 36	184,013 98	24,619 84	208,633 82
Passaic	2,586 20	97 10	.....	3,618 81	1,348 59	2,121 40	1,506,802 79	43,472 59	1,550,275 38
Salem .....	.....	.....	.....	696 47	174 65	468 42	226,431 31	26,837 61	253,268 92
Somerset .....	.....	.....	.....	563 25	825 27	62 63	344,114 19	21,806 02	365,919 21
Sussex .....	.....	.....	.....	277 77	107 56	576 74	203,068 10	32,804 13	235,862 23
Union	720 00	.....	.....	2,482 23	3,802 09	2,363 43	1,304,693 61	94,069 70	1,398,653 31
Warren .....	.....	.....	.....	630 37	200 60	703 89	261,609 98	16,703 21	278,313 19
Total	\$113,343 22	\$24,591 59	\$47,429 21	\$32,393 04	\$82,372 94	\$21,788,828 72	\$1,403,389 58	\$23,192,218 30	

TABLE 2
MANUAL AND INDUSTRIAL TRAINING FUNDS.

RECEIPTS.

COUNTIES.	From State Appropriation.	From District Tax for Manual Training.	From Subscriptions, Enter- tainments, etc.	From Sale of Manual Train- ing Materials.	Total Receipts During the Year for Manual Training.	Balance on Hand Beginning of Year.	Total Receipts During the Year and Balance on Hand Beginning of Year.
Atlantic	\$9,637 38	\$20,800 00	.....	\$155 91	\$30,643 29	\$2,147 62	\$32,790 91
Bergen	35,690 48	43,985 19	.....	2,865 86	82,694 73	16,721 75	99,416 48
Burlington	2,840 71	5,919 79	\$153 20	333 03	9,093 53	2,490 92	11,584 45
Camden	8,693 23	11,550 00	.....	80 08	20,323 31	2,296 93	22,610 24
Cape May	3,597 00	4,400 00	.....	25 00	8,131 85	1,691 23	9,823 08
Cumberland	7,459 69	8,465 10	.....	271 09	16,195 88	744 11	16,939 99
Essex	36,307 22	125,210 69	.....	1,492 40	163,591 81	11,051 06	174,642 87
Gloucester	5,815 02	1,919 66	.....	64 40	7,799 08	2,318 49	10,117 57
Hudson	25,669 50	85,363 24	.....	212 35	111,245 09	12,146 99	123,392 08
Hunterdon .....	.....	.....	100 00	.....	100 00	.....	100 00
Mercer	9,769 14	23,359 77	1,085 13	283 44	34,497 48	1,623 54	36,121 02
Middlesex	16,063 89	19,791 52	.....	516 52	36,371 93	7,910 53	44,282 46
Monmouth	16,008 04	20,618 24	1,000 00	920 80	38,547 08	10,015 63	48,562 71
Morris	10,146 82	12,678 81	132 64	7 94	22,966 21	11,598 77	34,564 98
Ocean	1,798 50	2,099 71	49 17	.....	3,947 38	1,312 50	5,259 88
Passaic	13,376 35	34,207 24	553 44	1,554 43	49,691 46	1,554 29	51,245 75
Salem	4,618 16	5,037 50	.....	20 52	9,676 18	455 06	10,131 24
Somerset	4,137 91	4,637 50	848 13	12 38	9,635 92	3,374 17	13,010 09
Sussex	3,740 06	4,575 00	354 03	60 80	8,729 89	1,718 12	10,448 01
Union	32,287 50	27,054 95	634 10	576 28	60,552 83	6,111 01	66,663 84
Warren	4,412 75	5,209 85	.....	95 72	9,718 32	2,200 57	11,918 89
Total	\$252,119 35	\$466,883 76	\$5,651 19	\$9,548 95	\$734,203 25	\$99,473 29	\$833,676 54

TABLE 2—Continued
MANUAL AND INDUSTRIAL TRAINING FUNDS.

PAYMENTS.

COUNTIES.	DAY SCHOOLS.					
	Salaries of Supervisors, Principals and Teachers and Amount Paid to State Treasurer for Retirement Fund.	Manual and Industrial Training Material and Supplies.	Repairs and Replacements.	New Equipment.	All Other Expense Incident to Manual and Industrial Training.	Total Manual and Industrial Training Expenditures, Day Schools.
Atlantic	\$17,562 06	\$6,048 43	\$1,777 43	\$2,570 37	\$18 66	\$27,976 94
Bergen	53,152 51	18,611 47	1,137 55	5,746 01	2,193 08	80,839 62
Burlington	4,612 62	1,990 49	137 96	1,680 69	790 79	9,213 45
Camden	11,937 01	8,292 23	443 58	23 90	537 52	21,224 24
Cape May	6,100 44	2,273 49	8 95	516 74	.....	8,898 62
Cumberland	9,556 31	4,220 66	384 40	1,566 14	.....	15,727 51
Essex	108,807 32	41,111 15	1,083 25	16,046 55	949 45	167,997 72
Gloucester	5,582 75	1,897 04	525 44	1,091 83	33 43	9,129 49
Hudson	94,806 51	17,293 47	1,177 18	2,811 56	250 21	116,337 93
Hunterdon .....	.....	.....	.....	.....	.....	.....
Mercer	22,151 40	9,951 92	462 78	1,183 91	977 59	34,677 60
Middlesex	24,437 73	8,814 05	476 13	2,961 14	1,378 91	38,067 96
Monmouth	30,754 35	6,670 14	733 03	2,708 55	946 57	41,813 64
Morris	14,449 97	4,780 19	466 51	4,414 86	323 99	24,440 52
Ocean	2,250 83	813 03	12 23	28 90	53 40	3,158 39
Passaic	34,961 42	11,279 70	489 33	1,471 85	276 67	48,478 97
Salem	4,918 75	2,076 21	.....	1,347 66	.....	8,343 62
Somerset	6,607 45	2,266 30	243 92	318 66	838 84	10,275 17
Sussex	4,251 65	946 26	22 55	.....	899 44	6,119 90
Union	26,853 00	15,117 37	1,581 60	4,245 33	737 23	58,534 53
Warren	5,078 00	1,364 05	.....	1,625 43	47 63	8,115 11
Total	\$498,831 97	\$165,815 65	\$11,163 82	\$52,310 08	\$11,246 41	\$739,367 93

TABLE 2—Continued
MANUAL AND INDUSTRIAL TRAINING FUNDS.

PAYMENTS.

COUNTIES.	EVENING SCHOOLS.						Total Manual and Industrial Training Expenditures, Day and Evening Schools.	Balance in Manual and Industrial Training Account Close of Year.	Grand Total of Expenditures During the Year and Balance on Hand Close of Year.
	Salaries of Supervisors, Principals and Teachers and Amount Paid to State Treasurer for Retirement Fund.	Manual and Industrial Training, Material and Supplies.	Repairs and Replacements.	New Equipment.	All Other Expense Incident to Manual and Industrial Training.	Total Manual and Industrial Training Expenditures, Evening Schools.			
Atlantic	\$27,976 94	\$4,813 97	\$32,790 91
Bergen	80,839 62	18,576 86	99,416 48
Burlington	9,212 45	2,372 00	11,584 45
Camden	21,224 24	1,386 00	22,610 24
Cape May	8,898 62	974 46	9,873 08
Cumberland	15,727 51	1,212 48	16,939 99
Essex	\$1,454 63	.....	.....	.....	\$1,454 63	169,452 40	5,190 47	174,642 87
Gloucester	9,129 49	988 08	10,117 57
Hudson	\$192 00	3 75	.....	.....	.....	195 75	116,533 63	6,858 40	123,392 03
Hunterdon	100 00	100 00
Mercer	24,677 60	1,443 42	26,121 02
Middlesex	38,067 96	6,214 50	44,282 46
Monmouth	41,812 64	6,750 07	48,562 71
Morris	122 00	6 28	.....	.....	.....	128 28	24,568 80	9,986 18	34,554 98
Ocean	3,158 39	2,101 49	5,259 88
Passaic	48,478 97	2,766 78	51,245 75
Salem	8,342 62	1,788 62	10,131 24
Somerset	10,275 17	2,784 92	13,010 09
Sussex	6,119 90	4,338 11	10,448 01
Union	58,534 53	3,129 31	61,663 84
Warren	8,115 11	3,803 78	11,918 89
Total	\$314 00	\$1,464 71	.....	.....	.....	\$1,778 71	\$741,146 64	\$92,529 90	\$833,676 54

TABLE 3
EVENING SCHOOLS FOR FOREIGN-BORN RESIDENTS FUNDS.

RECEIPTS.

COUNTIES.	RECEIPTS.					
	From State Appropriation, Sec. 176.	From District Tax for Foreign-Born Residents, Sec. 176.	From All Other Sources for Evening School for Foreign-Born Residents, Sec. 176.	Total Receipts During the Year for Evening School for Foreign-Born Residents.	Balance on Hand Beginning of Year.	Total Receipts During the Year and Balance on Hand Beginning of Year.
Atlantic	\$400 00	\$400 00	.....	\$800 00	\$847 96	\$1,447 96
Bergen .....	.....	.....	.....	.....	.....	.....
Burlington .....	.....	.....	.....	.....	.....	.....
Camden .....	.....	.....	.....	.....	.....	.....
Cape May .....	.....	.....	.....	.....	.....	.....
Cumberland .....	.....	.....	.....	.....	.....	.....
Essex .....	.....	.....	.....	.....	.....	.....
Gloucester .....	.....	.....	.....	.....	.....	.....
Hudson	1,717 66	1,717 67	.....	3,435 33	.....	3,435 33
Hunterdon .....	.....	.....	.....	.....	.....	.....
Mercer .....	.....	.....	.....	.....	.....	.....
Middlesex .....	.....	.....	.....	.....	.....	.....
Monmouth .....	.....	300 00	.....	300 00	.....	300 00
Morris .....	.....	250 00	.....	250 00	.....	250 00
Ocean .....	.....	.....	.....	.....	.....	.....
Passaic	1,649 53	1,341 45	.....	2,990 98	149 53	3,140 51
Salem .....	.....	.....	.....	.....	.....	.....
Somerset	280 83	.....	.....	280 83	.....	280 83
Sussex .....	.....	.....	.....	.....	.....	.....
Union	534 96	250 00	.....	784 96	.....	784 96
Warren .....	.....	.....	.....	.....	.....	.....
Total	\$4,582 98	\$4,259 12	.....	\$8,842 10	\$797 49	\$9,639 59

TABLE 3—Continued
EVENING SCHOOLS FOR FOREIGN-BORN RESIDENTS FUNDS.

PAYMENTS.

COUNTIES.	Salaries, Principals and Teachers.	Text Books and Supplies.	Janitors' Salaries.	Other Expenditures.	Total Expenditures During the Year.	Balance in Evening School for Foreign-Born Residents' Account at Close of Year.	Grand Total of Expenditures During the Year and Balance on Hand at Close of Year.
Atlantic	\$596 00	.....	\$46 54	\$13 75	\$655 29	\$792 67	\$1,447 96
Bergen .....	.....	.....	.....	.....	.....	.....	.....
Burlington .....	.....	.....	.....	.....	.....	.....	.....
Camden .....	.....	.....	.....	.....	.....	.....	.....
Cape May .....	.....	.....	.....	.....	.....	.....	.....
Cumberland .....	.....	.....	.....	.....	.....	.....	.....
Essex .....	.....	.....	.....	.....	.....	.....	.....
Gloucester .....	.....	.....	.....	.....	.....	.....	.....
Hudson	2,454 00	182 33	449 00	350 00	3,436 33	.....	3,436 33
Hunterdon .....	.....	.....	.....	.....	.....	.....	.....
Mercer .....	.....	.....	.....	.....	.....	.....	.....
Middlesex .....	.....	.....	.....	.....	.....	.....	.....
Monmouth	165 00	.....	15 00	.....	180 00	120 00	300 00
Morris .....	.....	.....	.....	.....	.....	250 00	250 00
Ocean .....	.....	.....	.....	.....	.....	.....	.....
Passaic	1,586 09	93 28	489 99	259 37	2,428 73	711 78	3,140 51
Salem .....	.....	.....	.....	.....	.....	.....	.....
Somerset	214 00	20 95	29 95	.....	264 90	15 93	280 83
Sussex .....	.....	.....	.....	.....	.....	.....	.....
Union	424 50	.....	181 50	9 94	615 94	169 02	784 96
Warren .....	.....	.....	.....	.....	.....	.....	.....
Total	\$5,438 59	\$296 56	\$1,211 98	\$633 06	\$7,580 19	\$2,059 40	\$9,639 59

TABLE 4
VOCATIONAL SCHOOL FUNDS.
RECEIPTS.

COUNTIES.	RECEIPTS.					Grand Total Receipts During the Year.	Balance on Hand Beginning of Year.	Grand Total Receipts During the Year and Balances on Hand Beginning of Year.
	From State Appropriation.	From District Tax for Vocational Schools.	From All Other Sources for Vocational Schools.	Total Receipts During the Year.	Balance on Hand Beginning of Year.			
Atlantic	\$11,697 66	\$16,800 00	.....	\$28,497 66	\$511 92	\$29,009 58	.....	.....
Bergen	248 88	250 00	.....	498 88	.....	498 88	.....	.....
Burlington .....	.....	.....	.....	.....	.....	.....	.....	.....
Camden .....	.....	.....	.....	.....	.....	.....	.....	.....
Cape May .....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland .....	.....	.....	.....	.....	.....	.....	.....	.....
Essex	36,967 76	61,507 21	753 95	99,228 92	471 14	102,475 87	.....	.....
Gloucester .....	.....	.....	.....	.....	.....	.....	.....	.....
Hudson	20,467 55	42,080 40	37,178 54	99,726 49	3,246 95	122,481 93	.....	.....
Hunterdon .....	.....	.....	.....	.....	.....	.....	.....	.....
Mercer .....	.....	.....	.....	.....	.....	.....	.....	.....
Middlesex	497 78	500 00	.....	997 78	558 60	1,556 38	.....	.....
Monmouth .....	.....	.....	.....	.....	.....	.....	.....	.....
Morris	74 67	75 00	.....	149 67	29 34	179 01	.....	.....
Ocean .....	.....	.....	.....	.....	.....	.....	.....	.....
Passaic	2,257 21	18,745 32	157 64	21,160 17	3,334 48	24,494 65	.....	.....
Salem .....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset .....	.....	.....	.....	.....	.....	.....	.....	.....
Sussex	2,837 30	2,850 00	2,196 91	7,884 21	2,165 52	10,049 73	.....	.....
Union .....	.....	.....	.....	.....	.....	.....	.....	.....
Warren .....	.....	.....	.....	.....	.....	.....	.....	.....
Total	\$75,048 81	\$142,807 93	\$40,287 04	\$258,143 78	\$33,073 89	\$291,217 17	.....	.....

TABLE 4--Continued
VOCATIONAL SCHOOL FUNDS.

PAYMENTS.

COUNTRIES.	DAY SCHOOLS.					
	Salaries of Supervisors, Principals and Teachers and Amount Paid to State Treasurer for Retirement Fund.	Material and Supplies.	Repairs and Replacements.	New Equipment.	All Other Expense Incident to Vocational Schools.	Total Expenditures During the Year for Vocational Day Schools.
Atlantic	\$21,209 55	\$4,083 14	.....	\$513 60	\$1,923 24	\$27,729 53
Bergen .....	.....	.....	.....	.....	.....	.....
Burlington .....	.....	.....	.....	.....	.....	.....
Camden .....	.....	.....	.....	.....	.....	.....
Cape May .....	.....	.....	.....	.....	.....	.....
Cumberland	400 00	.....	.....	.....	.....	400 00
Essex	43,930 38	6,771 49	1,422 06	4,707 35	4,808 92	61,640 20
Gloucester .....	.....	.....	.....	.....	.....	.....
Hudson	50,110 47	5,562 42	1,522 81	23,742 96	19,714 30	100,652 96
Hunterdon .....	.....	.....	.....	.....	.....	.....
Mercer .....	.....	.....	.....	.....	.....	.....
Middlesex	255 50	43 84	.....	105 80	352 50	757 64
Monmouth .....	.....	.....	.....	.....	.....	.....
Morris .....	.....	.....	.....	.....	.....	.....
Ocean .....	.....	.....	.....	.....	.....	.....
Passaic	12,942 51	1,688 49	71 74	2,759 54	270 83	17,733 16
Salem .....	.....	.....	.....	.....	.....	.....
Somerset .....	.....	.....	.....	.....	.....	.....
Sussex	5,366 98	2,534 31	4 68	.....	207 21	8,107 18
Union .....	.....	.....	.....	.....	.....	.....
Warren .....	.....	.....	.....	.....	.....	.....
Total	\$134,209 39	\$20,683 69	\$3,021 29	\$31,829 25	\$27,277 06	\$217,020 67

TABLE 4—Continued
VOCATIONAL SCHOOL FUNDS.

PAYMENTS.

COUNTIES.	EVENING SCHOOLS.							Total Expenditures Day and Evening Vocational Schools.	Balance in Vocational School Account at Close of Year.	Grand Total of Expenditures During the Year and Balance on Hand Close of Year.
	Salaries of Supervisors, Principals and Teachers and Amount Paid to State Treasurer for Retirement Fund.	Material and Supplies.	Repairs and Replacements.	New Equipment.	All Other Expense Incident to Vocational Schools.	Total Expenditures During the Year for Vocational and Evening Schools.				
Atlantic	\$243 00	\$8 32	.....	.....	.....	\$295 57	\$27,729 53	\$1,280 05	\$29,009 58
Bergen .....	.....	.....	.....	.....	\$44 25	.....	296 57	203 31	498 88
Burlington .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Camden .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cape May .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland .....	.....	.....	.....	.....	.....	.....	400 00	71 14	471 14
Essex	29,727 75	3,366 74	365 86	192 14	5,983 81	39,626 30	101,266 50	1,209 37	102,475 87	
Gloucester .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hudson	10,448 25	366 19	126 00	.....	1,398 25	12,338 69	112,991 65	9,490 28	122,481 93
Hunterdon .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mercer .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Middlesex .....	.....	.....	.....	.....	.....	.....	757 64	798 84	1,556 38
Monmouth .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Morris	50 00	5 87	.....	.....	33 66	89 53	89 53	89 48	179 01
Ocean .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Passaic	5,413 55	862 55	207 00	6 79	.....	6,489 89	24,223 05	271 60	24,494 65
Salem .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sussex	315 00	50 36	.....	.....	.....	365 36	8,472 54	1,577 19	10,049 73
Union .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Warren .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	\$46,197 55	\$4,660 03	\$688 86	\$198 93	\$7,459 97	\$59,206 34	\$276,226 01	\$14,991 16	\$291,217 17	

TABLE 5
SCHOOL LIBRARIES AND APPARATUS FUNDS.

RECEIPTS.

COUNTIES.	From State Appropriation.	From District Taxes.	From All Other Sources for Library Purposes.	Total Receipts During the Year for Library Purposes.	Balance on Hand Beginning of Year.	Grand Total Receipts During the Year and Balance on Hand Close of Year.
Atlantic	\$260 00	\$433 61	\$165 13	\$858 74	\$509 24	\$1,367 98
Bergen	410 00	1,556 56	282 10	2,248 66	1,750 93	3,999 59
Burlington	320 00	332 75	106 40	759 15	368 81	1,127 96
Camden	400 00	700 00	380 66	1,480 66	930 72	2,411 38
Cape May	160 00	200 00	106 52	466 52	217 11	683 63
Cumberland	450 00	395 00	167 74	1,012 74	458 62	1,471 36
Essex	440 00	10,339 17	296 99	11,076 16	808 13	11,884 29
Gloucester	290 00	120 00	235 75	645 75	231 64	877 39
Hudson	1,060 00	1,030 00	80 91	2,170 91	309 76	2,480 67
Hunterdon	210 00	42 70	165 34	418 04	76 18	494 22
Mercer	210 00	610 00	401 22	1,221 22	408 47	1,629 69
Middlesex	320 00	307 73	168 69	796 42	360 04	1,156 46
Monmouth	670 00	1,095 00	720 00	2,485 00	262 76	2,747 76
Morris	290 00	80 00	201 40	571 40	453 95	1,025 35
Ocean	340 00	90 00	195 72	625 72	200 90	826 62
Passaic	80 00	50 00	155 83	285 83	531 60	817 43
Salem	120 00	30 00	165 25	315 25	75 25	390 50
Somerset	130 00	47 53	242 20	419 73	137 53	557 31
Sussex	90 00	70 00	60 00	220 00	122 74	342 74
Union	160 00	190 00	166 10	516 10	410 53	926 63
Warren	280 00	50 00	390 06	720 06	477 40	1,197 46
Total	\$6,690 00	\$17,770 05	\$4,854 01	\$29,314 06	\$9,102 36	\$38,416 42

TABLE 5—Continued
SCHOOL LIBRARIES AND APPARATUS FUNDS.

PAYMENTS.

COUNTIES.	PAYMENTS.						Grand Total Expenditures During the Year and Balance on Hand Close of Year
	Salary of Librarian.	Library Books.	Apparatus.	Educational Works of Art.	Total Expenditures for Library Purposes.	Balance on Hand Close of Year.	
Atlantic .....	.....	\$446 82	\$238 30	\$184 25	\$869 37	\$498 61	\$1,367 98
Bergen	\$615 00	1,497 86	242 88	.....	2,355 74	1,643 85	3,999 59
Burlington	140 00	472 73	133 05	49 25	795 03	332 93	1,127 96
Camden	540 00	196 34	410 06	107 15	1,253 55	1,157 83	2,411 38
Cape May	30 00	.....	186 52	.....	216 52	467 11	683 63
Cumberland	22 40	720 88	502 56	.....	1,245 84	225 52	1,471 36
Essex	5,329 27	5,583 47	130 30	133 20	11,176 24	708 05	11,884 29
Gloucester .....	.....	141 22	412 34	115 25	663 81	208 58	872 39
Hudson	900 00	1,132 85	149 70	36 76	2,219 31	261 36	2,480 67
Hunterdon .....	.....	386 63	.....	.....	386 63	107 59	494 22
Mercer	556 00	275 02	396 36	31 95	1,259 33	370 36	1,629 69
Middlesex .....	.....	460 51	539 53	24 00	1,024 04	132 42	1,156 46
Monmouth	150 00	1,081 20	908 80	73 00	2,163 00	584 76	2,747 76
Morris .....	.....	219 64	421 74	10 00	651 38	373 97	1,025 35
Ocean .....	.....	348 61	144 80	131 60	625 01	201 61	826 62
Passaic .....	.....	208 25	84 70	110 00	402 95	414 48	817 43
Salem .....	.....	220 00	43 00	30 25	293 25	97 25	390 50
Somerset .....	.....	302 41	125 25	.....	427 66	129 65	557 31
Sussex .....	.....	167 38	85 00	10 00	263 38	80 36	343 74
Union .....	.....	585 48	10 00	23 50	618 98	307 65	926 63
Warren .....	.....	171 99	198 57	286 96	657 52	539 94	1,197 46
Total	\$8,282 67	\$14,569 29	\$5,863 46	\$1,357 12	\$29,572 54	\$8,843 88	\$38,416 42

TABLE 6
REDEMPTION OF AND INTEREST ON BONDS FUND.

RECEIPTS.

COUNTIES.	RECEIPTS.						Grand Total Receipts During the Year and Balance on Hand Close of Year.
	From District Taxes for Redemption of Bonds.	From District Taxes for Interest on Bonds.	From District Taxes for Sinking Fund.	From Accrued Interest on Bond Issues.	Total Receipts During the Year for the Redemption of and Interest on Bonds.	Balance on Hand Beginning of Year.	
Atlantic	\$34,700 00	\$33,159 71	\$28,638 55	\$54 98	\$136,553 24	\$5,678 14	\$142,231 38
Bergen	99,800 00	239,657 71	16,910 48	.....	356,368 19	27,076 73	383,444 92
Burlington	22,245 25	27,187 73	516 10	.....	52,526 08	4,634 68	57,160 76
Camden	21,700 00	96,134 27	3,125 00	.....	119,961 27	4,312 88	124,274 15
Cape May	16,300 00	20,523 50	5,325 35	.....	42,154 94	1,527 07	43,682 01
Cumberland	13,600 00	17,798 00	6,049 00	391 11	37,838 11	9,990 37	47,828 48
Essex	60,752 24	673,035 93	203,764 56	.....	937,552 73	3,780 43	941,333 16
Gloucester	20,203 85	13,762 50	580 00	31 08	34,577 43	6,730 16	41,307 59
Hudson	60,500 00	362,547 31	95,239 52	76,731 00	595,067 83	9,523 21	604,596 04
Hunterdon	8,300 00	9,751 25	.....	.....	18,051 25	89 17	18,140 42
Mercer	25,890 00	92,147 13	41,407 47	.....	159,434 60	9,723 47	169,158 07
Middlesex	36,197 50	86,959 57	.....	1,575 00	124,732 07	5,275 88	130,007 89
Monmouth	35,058 14	62,815 51	10,549 11	4,797 31	113,230 07	8,727 82	121,947 89
Morris	41,500 00	43,155 12	.....	207 02	84,662 14	15,311 63	100,173 77
Ocean	13,200 00	7,285 33	.....	.....	20,485 33	3,310 37	24,295 70
Pasquic	57,580 50	172,688 93	83,691 85	.....	313,961 28	4,229 97	318,191 25
Salem	21,090 00	13,337 60	.....	584 50	35,012 10	6,208 09	41,220 19
Somerset	20,400 00	17,826 50	.....	4 38	38,230 88	7,288 81	45,519 69
Sussex	11,000 00	10,508 50	500 00	.....	22,008 50	130 00	22,138 50
Union	28,500 00	157,327 67	46,855 73	.....	234,893 04	24,127 25	269,020 39
Warren	9,770 00	7,434 94	.....	2 24	17,207 18	1,477 43	18,684 61
Total	\$645,373 48	\$2,214,046 71	\$543,152 72	\$33,120 35	\$3,494,698 26	\$169,708 66	\$3,664,406 92

TABLE 6—Continued
REDEMPTION OF AND INTEREST ON BONDS FUND.

PAYMENTS.

COUNTIES.	Redemption of Bonds by District Taxes.	Payments to Sinking Fund.	Interest on Bonds.	Total Expenditures During the Year.	Balance on Hand at Close of Year.	Grand Total Expenditures During the Year and Balance on Hand Close of Year.
Atlantic	\$23,700 00	\$28,013 55	\$53,269 69	\$135,083 24	\$7,148 14	\$142,231 38
Bergen	99,350 00	16,810 48	242,561 14	358,721 62	24,723 30	383,444 92
Burlington	22,500 00	500 00	27,799 32	50,799 32	6,361 44	57,160 76
Camden	21,700 00	2,650 00	95,033 12	119,383 12	4,891 03	124,274 15
Cape May	16,600 00	5,325 35	20,547 87	42,473 22	1,208 79	43,682 01
Cumberland	14,600 00	6,049 00	16,670 75	37,319 75	10,508 73	47,828 48
Essex	60,975 00	203,764 56	673,337 29	938,076 85	3,256 31	941,333 16
Gloucester	17,706 66	580 00	19,452 00	37,738 66	3,568 93	41,307 59
Hudson	59,434 05	96,239 52	438,447 47	593,121 04	11,475 00	604,596 04
Hunterdon	8,300 00	.....	9,751 25	18,051 25	89 17	18,140 42
Mercer	27,630 00	41,407 47	90,031 96	169,069 43	10,088 64	169,158 07
Middlesex	29,550 00	.....	94,455 55	124,005 55	6,002 40	130,007 95
Monmouth	34,100 00	9,834 11	60,945 99	104,880 10	17,067 79	121,947 89
Morris	40,500 00	.....	42,426 87	82,926 87	17,246 90	100,173 77
Ocean	13,300 00	.....	7,322 00	20,622 00	3,673 70	24,295 70
Passaic	55,925 00	83,396 85	174,002 34	313,324 19	4,867 06	318,191 25
Salem	21,090 00	.....	13,325 10	34,415 10	6,806 09	41,220 19
Somerset	20,400 00	.....	17,946 50	38,346 50	7,173 19	45,519 69
Sussex	8,000 00	3,500 00	10,518 00	22,018 00	170 50	22,188 50
Union	28,500 00	70,092 62	162,303 64	260,896 26	8,124 13	269,020 39
Warren	7,925 00	.....	9,846 91	17,770 91	913 70	18,684 61
Total	\$631,785 71	\$567,163 51	\$2,310,093 76	\$3,509,042 98	\$155,363 94	\$3,664,406 92

TABLE 7
RECEIPTS FOR PAYMENTS OF AND INTEREST ON NOTES AUTHORIZED BY A VOTE OF
THE DISTRICT, OR OTHER EVIDENCES OF INDEBTEDNESS (EXCLUSIVE OF BONDS).

COUNTIES.	From District Taxes for Notes Authorized by a Vote of the District, or Other Evidences of Indebt- edness.	From District Taxes for In- terest on Notes Author- ized by a Vote of the Dis- trict or Other Evidences of Indebtedness.	Total Receipts for the Pay- ment of and Interest on Notes Authorized by a Vote of the District or Other Evidences of In- debtedness.	Balance on Hand Beginning of Year.	Grand Total Receipts Dur- ing the Year and Balance on Hand Close of Year.
Atlantic	\$2,412 50	\$561 00	\$2,973 50	\$3 61	\$2,977 11
Bergen.	18,100 00	789 10	18,889 10	976 75	19,865 85
Burlington	1,806 00	468 83	2,274 83	.....	2,274 83
Camden	3,000 00	94 00	3,094 00	71 72	3,165 72
Cape May	993 66	.....	993 66	.....	993 66
Cumberland .....	.....	.....	.....	.....	.....
Essex .....	.....	.....	.....	.....	.....
Gloucester	6,060 00	106 64	6,166 64	.....	6,166 64
Hudson .....	.....	.....	.....	.....	.....
Hunterdon .....	.....	.....	.....	.....	.....
Mercer .....	.....	.....	.....	.....	.....
Middlesex	2,000 00	55 27	2,055 27	.....	2,055 27
Monmouth	1,900 00	180 00	2,080 00	.....	2,080 00
Morris	8,800 00	500 00	9,300 00	.....	9,300 00
Ocean .....	.....	.....	.....	.....	.....
Passaic .....	.....	4,500 00	4,500 00	.....	4,500 00
Salem	2,700 00	59 19	2,759 19	.....	2,759 19
Somerset	10,700 00	1,745 53	12,445 53	.....	12,445 53
Sussex	3,760 06	.....	3,760 06	.....	3,760 06
Union	7,000 00	8,062 50	10,062 50	461 95	10,524 45
Warren	4,819 00	250 00	5,069 00	.....	5,069 00
Total	\$74,041 22	\$12,371 06	\$86,412 28	\$1,514 03	\$87,926 31

TABLE 7—Continued
PAYMENT OF AND INTEREST ON NOTES AUTHORIZED BY A VOTE OF THE DISTRICT,
OR OTHER EVIDENCES OF INDEBTEDNESS (EXCLUSIVE OF BONDS).

COUNTIES.	Payment of Notes, Author- ized by a Vote of the Dis- trict, or Other Evidences of Indebtedness.	Interest on Notes, Author- ized by a Vote of the Dis- trict, or Other Evidences of Indebtedness.	Total Expenditures During the Year.	Balance on Hand Close of Year.	Total Expenditures During the Year and Balance on Hand Close of Year.
Atlantic	\$2,075 00	\$896 75	\$2,971 75	\$5 36	\$2,977 11
Bergen	17,206 75	906 75	18,112 50	1,753 35	19,865 85
Burlington	1,500 00	774 83	2,274 83	.....	2,274 83
Camden	3,000 00	165 72	3,165 72	.....	3,165 72
Cape May .....	.....	593 66	593 66	400 00	993 66
Cumberland .....	.....	.....	.....	.....	.....
Essex .....	.....	.....	.....	.....	.....
Gloucester	5,360 00	106 64	5,466 64	700 00	6,166 64
Hudson .....	.....	.....	.....	.....	.....
Hunterdon .....	.....	.....	.....	.....	.....
Mercer .....	.....	.....	.....	.....	.....
Middlesex	2,000 00	55 27	2,055 27	.....	2,055 27
Monmouth	1,900 00	135 00	2,035 00	45 00	2,080 00
Morris	8,800 00	396 53	9,196 53	103 47	9,300 00
Ocean .....	.....	.....	.....	.....	.....
Passaic .....	.....	3,307 90	3,307 90	1,192 10	4,500 00
Salem	2,700 00	59 19	2,759 19	.....	2,759 19
Somerset	10,700 00	1,745 53	12,445 53	.....	12,445 53
Sussex	3,760 06	.....	3,760 06	.....	3,760 06
Union	7,000 00	2,938 31	9,938 31	586 14	10,524 45
Warren	4,727 95	341 06	5,069 00	.....	5,069 00
Total	\$70,719 76	\$12,421 13	\$83,140 89	\$4,785 42	\$87,926 31

TABLE 8
PURCHASE OF LAND.

COUNTIES.	RECEIPTS.					PAYMENTS.		
	From District Tax for Purchase of Land.	From Sale of Bonds, for Purchase of Land.	Total Receipts During the Year.	Balance on Hand Beginning of Year.	Total Receipts During the Year and Balance on Hand Beginning of Year.	Purchase of Land.	Balance on Hand at Close of Year.	Total Expenditure During the Year and Balance on Hand at Close of Year.
Atlantic	\$1,830 00	.....	\$1,830 00	\$963 25	\$963 25	.....	\$963 25	\$963 25
Bergen .....	.....	.....	.....	118 31	1,948 31	.....	53 78	1,948 31
Burlington .....	.....	\$1,500 00	1,500 00	.....	1,500 00	1,500 00	.....	1,500 00
Camden .....	.....	8,388 74	8,388 74	2,350 13	10,738 87	8,388 74	2,350 13	10,738 87
Cape May	200 00	.....	200 00	.....	200 00	200 00	.....	200 00
Cumberland	5,657 00	.....	5,657 00	46 09	5,703 09	5,657 00	46 09	5,703 09
Essex	1,700 00	40,212 00	41,912 00	79,115 09	121,027 09	54,602 00	66,425 09	121,027 09
Gloucester	817 33	.....	817 33	.....	817 33	817 33	.....	817 33
Hudson	5,827 01	209,870 00	215,697 01	340,015 86	555,712 87	302,502 84	253,210 03	555,712 87
Hunterdon	500 00	.....	500 00	.....	500 00	500 00	.....	500 00
Mercer .....	.....	6,000 00	6,000 00	2,916 82	8,916 82	4,879 06	4,037 77	8,916 82
Middlesex	13,792 00	3,500 00	17,292 00	.....	17,292 00	17,292 00	.....	17,292 00
Monmouth	6,500 00	6,900 00	13,400 00	.....	13,400 00	13,400 00	.....	13,400 00
Morris .....	.....	12,000 00	12,000 00	.....	12,000 00	12,000 00	.....	12,000 00
Ocean	175 00	3,850 00	4,025 00	.....	4,025 00	4,025 00	.....	4,025 00
Passaic .....	.....	.....	.....	2,891 32	2,891 32	.....	2,891 32	2,891 32
Salem	600 00	.....	600 00	.....	600 00	600 00	.....	600 00
Somerset .....	.....	4,500 00	4,500 00	80	4,500 80	4,500 00	80	4,500 80
Sussex	700 00	.....	700 00	14 76	714 76	700 00	14 76	714 76
Union	2,752 00	19,250 00	22,002 00	11,291 41	33,293 41	22,010 84	11,282 57	33,293 41
Warren	7,500 00	1,000 00	8,500 00	1 00	8,501 00	8,344 29	156 71	8,501 00
Total	\$48,550 34	\$316,970 74	\$365,521 08	\$439,724 84	\$805,245 92	\$463,813 62	\$341,432 30	\$805,245 92

TABLE 9
BUILDING, LEASING, ENLARGING, ALTERING, REPAIRING, IMPROVING, FURNISHING
AND EQUIPPING SCHOOL BUILDINGS.

COUNTIES.	RECEIPTS.					
	From District Taxes.	From Sale of Bonds.	From Sale of Build- ings.	From Sale of Fur- niture and Equip- men.	From Sale of Land.	From Fire Insur- ance.
Atlantic	\$48,279 82	\$8,000 00	.....	\$211 86	.....	.....
Bergen	106,517 20	262,276 69	.....	278 63	.....	\$537 49
Burlington	23,080 75	64,750 00	\$1,906 68	.....	.....	.....
Camden	53,128 57	217,983 33	111 50	6 00	.....	744 00
Cape May	9,481 75	26,347 51	.....	37 53	.....	.....
Cumberland	28,710 06	49,546 88	582 79	.....	.....	.....
Essex	353,278 34	40,000 00	.....	896 23	.....	743 09
Gloucester	23,165 46	1,750 00	696 88	82 10	1,100 00	1,250 00
Hudson	167,462 66	1,028,176 61	336 00	63 75	.....	160 00
Hunterdon	6,037 61	28,500 00	.....	.....	.....	.....
Mercer	52,959 62	128,111 56	3,950 00	40 25	.....	245 36
Middlesex	45,805 76	243,522 69	175 00	56 94	.....	106 71
Monmouth	41,460 62	241,816 27	.....	13 25	.....	175 00
Morris	52,198 80	18,750 00	3,000 00	.....	.....	65 00
Ocean	8,507 01	.....	.....	39 67	.....	500 00
Passaic	46,964 46	67,976 31	225 00	.....	.....	1,000 00
Salem	16,331 23	.....	54 75	.....	60 00	.....
Somerset	17,196 00	6,000 00	.....	8 00	950 00	2,600 00
Sussex	11,359 45	.....	.....	3 00	.....	900 00
Union	73,613 79	146,000 00	.....	.....	.....	25 00
Warren	8,932 11	17,603 67	.....	13 00	.....	.....
Total	\$1,193,461 16	\$2,615,109 52	\$11,037 60	\$1,748 11	\$2,110 00	\$8,750 66

TABLE 9—Continued

BUILDING, LEASING, ENLARGING, ALTERING, REPAIRING, IMPROVING, FURNISHING
AND EQUIPPING SCHOOL BUILDINGS.

COUNTIES.	RECEIPTS.				
	From Interest on Deposits.	From All Other Sources for Above Purposes.	Total Receipts During the Year for Above Purposes.	Balance on Hand Beginning of Year for Building, Leasing, etc.	Total Receipts During the Year and Balance on Hand Beginning of Year for Building, Leasing, etc.
Atlantic	\$345 47	\$160 83	\$56,997 98	\$28,523 32	\$85,521 30
Bergen	16,479 33	6,457 50	391,545 84	953,988 76	1,345,534 60
Burlington	1,315 51	830 00	91,882 94	49,162 11	141,045 05
Camden	625 77	452 59	273,051 76	60,753 69	333,805 45
Cape May	829 93	2,990 52	39,687 24	127,765 50	167,452 74
Cumberland	.....	51 45	78,891 18	12,869 67	91,760 85
Essex	18,965 34	24,447 27	438,332 27	1,276,643 68	1,714,973 95
Gloucester	241 66	5,443 54	33,729 64	30,549 36	64,279 00
Hudson	3,794 36	5,174 80	1,205,167 17	1,195,171 57	2,400,338 74
Hunterdon	9 60	224 81	34,772 02	1,642 79	36,414 81
Mercer	51 81	10,757 86	194,116 46	34,698 03	228,814 49
Middlesex	541 57	20,376 91	330,693 48	37,493 74	368,077 22
Monmouth	37 77	1,473 37	284,976 28	13,891 85	298,868 13
Morris	4,400 96	1,702 03	80,116 79	253,449 01	333,565 80
Ocean	39 50	54 66	9,140 84	10,303 65	19,444 49
Passaic	346 77	477 10	116,978 64	112,971 94	229,950 58
Salem	.....	.....	16,445 33	11,571 01	28,016 34
Somerset	.....	756 36	27,511 11	1,248 56	28,759 67
Sussex	916 02	2,114 74	14,993 21	56,447 73	71,440 94
Union	4,179 07	2,404 89	226,222 75	178,589 54	404,812 29
Warren	485 60	907 31	27,940 69	79,250 86	107,191 55
Total	\$53,606 04	\$87,258 54	\$3,973,081 62	\$4,526,986 37	\$8,500,067 99

TABLE 9—Continued
BUILDING, LEASING, ENLARGING, ALTERING, REPAIRING, IMPROVING, FURNISHING
AND EQUIPPING SCHOOL BUILDINGS.

COUNTIES.	PAYMENTS.								
	Building and En- larging School Buildings.	Extraordinary Re- pairs Improving School Buildings.	Ordinary Repairs (Current Upkeep).	New Furniture and Equipment.	Repairs and Re- placement of Fur- niture and Equip- ment.	Leasing School Buildings.	Total Expenditures During the Year.	Balance on Hand Close of Year.	Total Expense Dur- ing the Year and Balance on Hand at Close of Year.
Atlantic	\$11,676 35	\$8,795 12	\$19,417 05	\$10,816 74	\$26,531 09	\$192 50	\$77,428 85	\$8,092 45	\$85,521 30
Bergen	894,230 00	75,208 25	48,467 36	33,916 66	7,885 59	1,069 50	1,060,777 36	284,757 24	1,345,534 60
Burlington	80,162 99	3,280 46	8,474 41	3,772 03	3,954 55	948 00	99,992 44	41,052 61	141,045 05
Camden	237,730 83	11,699 34	26,954 28	12,469 03	9,718 45	2,014 00	300,595 93	33,219 52	333,806 45
Cape May	142,220 79	1,222 16	6,040 15	9,865 23	1,328 12	383 00	161,059 45	6,393 29	167,452 74
Cumberland	54,377 82	9,949 37	14,355 44	6,118 87	880 28	372 75	86,054 51	5,708 34	91,760 85
Essex	682,369 27	84,497 90	165,431 99	61,383 46	25,823 06	550 00	1,020,055 68	694,918 27	1,714,973 95
Gloucester	18,761 89	7,244 21	6,179 94	3,952 58	3,107 41	1,779 43	41,125 46	23,153 54	64,279 00
Hudson	1,376,611 60	6,070 68	154,899 44	35,334 48	16,621 31	1,115 00	1,590,653 51	809,686 23	2,400,338 74
Hunterdon	18,698 46	2,210 50	2,221 30	556 63	813 64	.....	24,505 53	11,909 28	36,414 81
Mercer	69,803 21	5,278 71	44,415 62	8,194 44	5,023 55	3,791 68	126,507 21	92,307 28	228,814 49
Middlesex	99,420 43	13,951 76	34,499 65	7,252 82	7,785 53	390 00	163,250 23	204,827 00	368,077 23
Monmouth	147,692 72	8,441 22	22,065 62	4,680 84	6,383 83	1,424 45	190,068 63	108,799 45	298,868 13
Morris	200,994 81	25,166 62	15,619 41	11,570 35	4,434 45	655 90	258,441 54	75,124 26	333,565 80
Ocean	5,518 21	409 26	3,694 90	1,808 68	802 53	550 00	12,783 63	6,660 86	19,444 49
Passaic	114,745 08	14,532 61	23,818 58	40,402 78	3,350 09	2,134 00	203,983 14	25,967 44	229,950 58
Salem	6,532 14	2,595 76	6,354 11	4,223 76	1,340 60	720 00	21,768 87	6,249 97	28,016 34
Somerset	6,099 03	1,019 89	11,727 72	4,379 23	784 06	.....	23,909 92	4,849 75	28,759 67
Sussex	37,346 21	222 42	6,545 07	2,104 09	672 70	1,017 50	47,907 99	23,532 96	71,440 94
Union	149,117 34	5,499 93	30,181 32	11,376 25	31,713 87	2,600 60	230,489 31	174,323 98	404,812 29
Warren	54,680 98	1,139 14	4,715 75	5,450 35	652 59	416 21	67,055 03	40,136 53	107,191 55
Total	\$4,408,790 16	\$288,535 31	\$656,079 11	\$278,909 30	\$184,562 35	\$21,524 52	\$5,818,400 75	\$2,681,667 24	\$8,500,067 99

TABLE 10
OUTHOUSES AND WATER CLOSETS.

COUNTIES.	Receipts.	Payments.		
	From District Tax and Other Sources for Outhouses and Water Closets, Including Balance from Beginning of Year.	Outhouses and Water Closets.	Balance on Hand at Close of Year.	Total Expenditures During the Year and Balance on Hand Close of Year.
Atlantic	\$217 58	\$300 00	\$17 58	\$217 58
Bergen	1,050 00	637 25	412 75	1,050 00
Burlington	65 00	65 00		65 00
Camden				
Cape May	620 64	609 57	11 07	620 64
Cumberland	4 50		4 50	4 50
Essex	30 00	30 00		30 00
Gloucester	20 00	20 00		20 00
Hudson				
Hunterdon	250 00	4 95	245 05	250 00
Mercer	1,645 34	1,516 00	129 34	1,645 34
Middlesex	500 00	500 00		500 00
Monmouth	680 00	680 00		680 00
Morris	298 50	298 50		298 50
Ocean	307 51	33 75	273 76	307 51
Passaic				
Salem	393 16	393 16		393 16
Somerset	540 50	173 91	366 59	540 50
Sussex	44 71	44 71		44 71
Union	56 25	56 25		56 25
Warren	97 40		97 40	97 40
Total	\$6,921 09	\$5,363 05	\$1,558 04	\$6,921 09

TABLE II

SUMMARY OF RECEIPTS AND EXPENDITURES.

TABLE 13
STATEMENT OF BONDED DEBT.

COUNTIES.	AMOUNT OF INDEBTEDNESS.					
	Amount of Interest Paid. (Must equal amount re- ported in financial state- ment on pages 26 and 27).	Outstanding July 1, 1917.	Issued During Year.	Total.	Redeemed During Year.	Outstanding at the Close of School Year.
Atlantic	284,266 44	\$1,894,425 00	\$13,000 00	\$1,907,425 00	\$32,775 00	\$1,874,650 00
Bergen	243,466 89	5,027,096 13	266,000 00	5,293,096 13	103,084 78	5,190,011 35
Burlington	28,574 15	651,050 00	43,950 00	695,000 00	22,900 00	672,100 00
Camden	95,198 84	2,203,545 00	224,467 14	2,428,012 14	119,950 00	2,308,062 14
Cape May	21,141 53	504,500 00	39,000 00	543,500 00	16,100 00	527,400 00
Cumberland	16,670 75	366,753 12	53,546 88	420,300 00	14,600 00	405,700 00
Essex	673,337 29	16,305,594 93	72,000 00	16,377,594 93	61,976 00	16,315,619 93
Gloucester	19,557 64	393,943 24	15,000 00	408,943 24	16,706 66	392,236 58
Hudson	438,447 47	10,001,319 00	912,676 61	10,913,996 61	173,500 00	10,740,496 61
Hunterdon	9,751 25	220,800 00	29,000 00	249,800 00	6,800 00	243,000 00
Mercer	90,031 96	2,140,100 00	128,000 00	2,268,100 00	57,130 00	2,210,970 00
Middlesex	94,510 82	2,020,255 50	250,500 00	2,270,755 50	53,050 00	2,217,705 50
Monmouth	61,080 99	1,312,100 00	246,200 00	1,558,300 00	35,100 00	1,523,200 00
Morris	42,823 40	956,601 00	41,750 00	998,351 00	49,300 00	949,051 00
Ocean	7,322 00	153,900 00	.....	153,900 00	13,300 00	140,600 00
Passaic	177,310 24	4,536,650 00	.....	4,536,650 00	79,900 00	4,456,750 00
Salem	13,394 29	291,190 00	.....	291,190 00	23,790 00	267,400 00
Somerset	19,692 03	431,800 00	11,000 00	442,800 00	30,400 00	412,400 00
Sussex	10,518 00	189,000 00	.....	189,000 00	8,000 00	181,000 00
Union	165,241 95	3,649,794 42	165,250 00	3,835,044 42	86,323 84	3,748,720 58
Warren	10,186 96	341,600 00	.....	341,600 00	10,825 00	330,775 00
Total	\$2,322,514 89	\$53,612,017 34	\$2,511,340 63	\$56,123,357 97	\$1,015,510 28	\$55,107,847 69

TABLE 14
SCHOOL BUILDINGS OWNED AND RENTED.

COUNTIES.	VALUE OF PROPERTY.				BUILDINGS.											Is Flag Displayed Daily?
	Land.	Buildings.	Equipment.	Total Value.	Number Completed During Current Year.	Number Enlarged or Remodeled During Current Year.	Number of One-room Buildings.	Number of Two-room Buildings.	Number of Three-room Buildings.	Number of Four-room Buildings.	Number of Five or More Room Buildings.	Total Number of School Buildings Owned.	Total Number of School Buildings Rented.	Total Number of Class Rooms.	Total Number of Pupils' Seats. (Double desk count two).	
Atlantic	\$593,125 00	\$1,956,768 75	\$197,218 34	\$2,747,112 09	12	4	36	14	5	6	23	87	2	497	18,842	Yes
Bergen	796,435 00	5,477,280 00	411,531 00	6,685,276 00	5	2	26	13	7	23	101	162	4	1,277	45,527	Yes
Burlington	106,260 00	1,188,720 00	152,720 00	1,447,700 00	5	2	33	19	3	12	27	97	6	1,397	15,308	Yes
Camden	416,500 00	2,780,932 00	227,226 08	3,424,658 08	4	2	37	26	5	32	55	143	12	861	32,024	Yes
Cape May	90,600 00	609,275 00	67,864 00	767,739 00	...	...	14	18	2	9	13	51	1	206	6,596	Yes
Cumberland	95,300 00	781,450 00	86,700 00	963,450 00	...	...	29	16	5	9	23	82	...	330	14,825	Yes
Essex	2,960,030 06	16,235,452 64	1,214,753 39	20,450,241 03	1	9	9	9	6	9	144	176	1	3,026	112,502	Yes
Gloucester	86,384 25	613,452 80	56,323 84	756,140 69	...	...	36	27	3	14	11	80	11	276	10,339	Yes
Hudson	2,511,263 91	13,225,532 00	1,416,165 23	17,152,966 13	...	...	2	1	...	3	107	110	3	2,243	99,324	Yes
Hunterdon	24,700 00	440,400 00	41,825 00	506,925 00	...	...	74	8	...	5	8	97	...	200	7,117	Yes
Mercer	312,335 00	2,246,828 00	276,471 00	2,836,134 00	...	...	18	6	...	13	43	83	3	611	21,746	Yes
Middlesex	418,157 00	2,396,208 00	328,801 00	3,143,166 00	...	...	29	10	...	12	53	103	3	630	26,471	Yes
Monmouth	292,025 00	2,405,740 80	193,908 20	2,891,674 00	...	...	56	27	...	16	41	142	1	643	24,891	Yes
Morris	196,873 00	1,303,322 73	110,232 32	1,609,428 06	...	...	47	26	...	20	28	117	2	406	15,096	Yes
Ocean	63,617 00	325,275 00	42,100 00	440,992 00	...	...	41	15	...	2	10	69	1	173	5,378	Yes
Pasquoit	967,731 55	4,780,042 91	443,142 96	6,185,967 44	...	...	17	7	...	3	61	90	1	1,072	43,384	Yes
Salem	74,650 00	418,550 00	47,653 00	540,853 00	...	...	51	7	...	4	13	71	9	214	7,898	Yes
Somerset	122,035 00	906,000 00	106,936 00	1,134,971 00	...	...	46	9	...	3	15	77	1	262	9,752	Yes
Sussex	29,300 00	344,226 00	45,025 00	419,050 00	...	...	75	5	...	2	10	92	2	181	6,646	Yes
Union	558,925 00	4,156,917 29	458,255 97	5,174,098 26	...	...	17	4	...	5	69	96	...	833	30,590	Yes
Warren	53,910 00	538,100 00	79,414 00	721,424 00	...	...	62	14	...	3	13	91	3	280	9,238	Yes
Total	\$10,750,191 77	\$63,240,452 82	\$6,009,321 34	\$79,999,965 93	42	37	760	281	64	208	868	2115	66	14,666	564,043	Yes

TABLE 15
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	SUPERINTENDENTS.			ASSISTANT SUPERINTENDENTS. (An Assistant Superintendent & the Superintendent, and whose of instruction and with general										
	Annual Salary.	Men.	Women.	Number Employed—Men.	Number Employed—Women.	Number Employed—Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	\$6,750 00	1	1	1	1	2	\$6,750 00	\$6,750 00	\$4,500 00	\$4,500 00	\$4,500 00	\$4,500 00	\$4,500 00	\$4,500 00
Bergen	4,000 00	1	1	1	1	2	4,000 00	4,000 00	4,000 00	4,000 00	4,000 00	4,000 00	4,000 00	4,000 00
Burlington	1,600 00	1	1	1	1	2	1,600 00	1,600 00	1,600 00	1,600 00	1,600 00	1,600 00	1,600 00	1,600 00
Camden	6,200 00	1	1	1	1	2	6,200 00	6,200 00	6,200 00	6,200 00	6,200 00	6,200 00	6,200 00	6,200 00
Cape May	4,200 00	1	1	1	1	2	4,200 00	4,200 00	4,200 00	4,200 00	4,200 00	4,200 00	4,200 00	4,200 00
Cumberland	4,600 00	1	1	1	1	2	4,600 00	4,600 00	4,600 00	4,600 00	4,600 00	4,600 00	4,600 00	4,600 00
Essex	28,250 00	1	1	1	1	2	28,250 00	28,250 00	28,250 00	28,250 00	28,250 00	28,250 00	28,250 00	28,250 00
Gloucester	28,250 00	1	1	1	1	2	28,250 00	28,250 00	28,250 00	28,250 00	28,250 00	28,250 00	28,250 00	28,250 00
Hudson	4,000 00	1	1	1	1	2	4,000 00	4,000 00	4,000 00	4,000 00	4,000 00	4,000 00	4,000 00	4,000 00
Hunterdon	4,000 00	1	1	1	1	2	4,000 00	4,000 00	4,000 00	4,000 00	4,000 00	4,000 00	4,000 00	4,000 00
Marcer	9,650 00	1	1	1	1	2	9,650 00	9,650 00	9,650 00	9,650 00	9,650 00	9,650 00	9,650 00	9,650 00
Middlesex	7,100 00	1	1	1	1	2	7,100 00	7,100 00	7,100 00	7,100 00	7,100 00	7,100 00	7,100 00	7,100 00
Monmouth	11,750 00	1	1	1	1	2	11,750 00	11,750 00	11,750 00	11,750 00	11,750 00	11,750 00	11,750 00	11,750 00
Morris	2,500 00	1	1	1	1	2	2,500 00	2,500 00	2,500 00	2,500 00	2,500 00	2,500 00	2,500 00	2,500 00
Ocean	16,000 00	1	1	1	1	2	16,000 00	16,000 00	16,000 00	16,000 00	16,000 00	16,000 00	16,000 00	16,000 00
Passaic	2,500 00	1	1	1	1	2	2,500 00	2,500 00	2,500 00	2,500 00	2,500 00	2,500 00	2,500 00	2,500 00
Salem	16,000 00	1	1	1	1	2	16,000 00	16,000 00	16,000 00	16,000 00	16,000 00	16,000 00	16,000 00	16,000 00
Somerset	2,500 00	1	1	1	1	2	2,500 00	2,500 00	2,500 00	2,500 00	2,500 00	2,500 00	2,500 00	2,500 00
Sussex	16,000 00	1	1	1	1	2	16,000 00	16,000 00	16,000 00	16,000 00	16,000 00	16,000 00	16,000 00	16,000 00
Union	2,500 00	1	1	1	1	2	2,500 00	2,500 00	2,500 00	2,500 00	2,500 00	2,500 00	2,500 00	2,500 00
Warren	16,000 00	1	1	1	1	2	16,000 00	16,000 00	16,000 00	16,000 00	16,000 00	16,000 00	16,000 00	16,000 00
Total	\$137,900 00	38	38	5	5	10	\$20,300 00	\$2,300 00	\$2,300 00	\$2,300 00	\$4,500 00	\$4,500 00	\$4,060 00	\$4,060 00

TABLE 15—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			C Where : one-half		APPROVED SUPERVISING PRINCIPALS.								Average—Men. Average—Women.	
	Men.	Women.	Total.	Aggregate Salary— Men.	Aggregate Salary— Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.						
Atlantic	2	2	4	25,350 00		12,400 00		\$2,300 00				\$1,733 33			
Bergen	9	3	12	23,650 00		1,250 00		2,750 00				2,537 77			
Burlington	3	1	4	6,800 00	\$1,700 00	1,800 00	\$1,700 00	1,700 00	\$1,700 00			2,266 67	\$1,700 00		
Camden	4		4	5,955 00		1,200 00		1,800 00				1,433 75			
Cape May	2		2	3,600 00		1,600 00		2,000 00				1,800 00			
Cumberland	2		2	3,400 00		1,400 00		2,000 00				1,700 00			
Essex	6		6	20,600 00		2,500 00		4,000 00				3,433 33			
Gloucester	2	1	3	5,100 00	1,200 00	1,100 00	1,200 00	3,500 00	1,200 00			1,700 00	1,200 00		
Hudson				1,800 00		1,600 00		1,800 00				1,600 00			
Hunterdon	1		1	1,800 00		1,450 00		2,000 00				1,719 00			
Mercer	4		4	8,878 00		1,450 00		2,000 00				1,675 00	2,835 00		
Middlesex	8	1	9	14,730 00	1,825 00	606 00	2,836 00	2,000 00	2,836 00			1,535 00			
Monmouth	6		6	9,150 00		1,100 00		2,100 00				1,486 91			
Morris	11		11	16,455 00		1,000 00		2,600 00				1,483 75			
Ocean	4		4	5,875 00		1,000 00		2,600 00				1,416 66			
Passaic	6		6	8,500 00		1,000 00		1,800 00				1,800 00			
Salem	1	1	2	1,800 00		1,800 00		2,600 00				2,033 33			
Somerset	3		3	5,108 00		1,000 00		1,800 00				1,800 00			
Sussex	1		1	1,600 00		1,600 00		1,800 00				1,800 00			
Union	2		2	3,700 00		1,600 00		3,100 00				1,850 00			
Warren	2		2	3,700 00		1,600 00		3,100 00				1,850 00			
Total	79	31	110	\$150,741 00	\$6,825 00	\$635 00	\$1,230 00	\$4,000 00	\$2,836 00	\$1,908 11	\$1,908 11	\$1,941 00			

of \$900.00 is made.
school districts enter as
icts enter as one-third in

TABLE 15—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED			UNAPPROVED SUPERVISING PRINCIPALS. (Those who devote their time to administration and supervision of instruction of a group of schools).							
	Men.	Women.	Total.	Aggregate Salary— Men.	Aggregate Salary— Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	1	.....	1	\$1,650 00	.....	\$1,650 00	.....	\$1,650 00	.....	\$1,650 00	.....
Bergen	14	.....	14	27,200 00	.....	1,500 00	.....	2,500 00	.....	1,942 85	.....
Burlington	5	1	6	7,532 50	\$1,000 00	1,200 00	\$1,000 00	1,800 00	\$1,000 00	1,506 50	\$1,000 00
Camden	4	.....	4	7,900 00	.....	1,700 00	.....	2,200 00	.....	1,975 00	.....
Cape May .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Essex	2	.....	2	5,600 00	.....	2,400 00	.....	3,200 00	.....	2,800 00	.....
Gloucester	3	.....	3	5,234 72	.....	1,550 00	.....	2,000 00	.....	1,761 57	.....
Hudson	6	.....	6	14,200 00	.....	1,700 00	.....	3,000 00	.....	2,366 67	.....
Hunterdon .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mercer .....	.....	2	2	.....	3,700 00	.....	1,400 00	.....	2,300 00	.....	1,850 00
Middlesex	3	.....	3	6,700 00	.....	1,600 00	.....	2,100 00	.....	1,900 00	.....
Monmouth	5	.....	5	10,575 00	.....	1,525 00	.....	3,000 00	.....	2,115 00	.....
Morris	6	.....	6	15,000 00	.....	1,700 00	.....	3,750 00	.....	2,500 00	.....
Ocean	3	.....	3	3,336 00	.....	636 00	.....	1,500 00	.....	1,112 00	.....
Passaic .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Salem	2	.....	2	3,000 00	.....	1,500 00	.....	1,500 00	.....	1,500 00	.....
Somerset	3	.....	3	7,250 00	.....	1,800 00	.....	2,750 00	.....	2,416 65	.....
Sussex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Union	17	18	30	36,950 00	19,400 00	1,600 00	1,200 00	3,500 00	2,400 00	2,173 52	1,492 30
Warren	2	.....	2	2,600 00	.....	1,100 00	.....	1,500 00	.....	1,300 00	.....
Total	76	16	92	\$153,778 22	\$24,100 00	\$636 00	\$1,000 00	\$3,750 00	\$2,400 00	\$2,023 40	\$1,506 25

TABLE 15—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED			NON-TEACHING PRINCIPALS. (Those who devote their time to administration and supervision of instruction of a school).							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	3	9	12	\$7,750 00	\$12,800 00	\$1,900 00	\$1,400 00	\$3,200 00	\$1,600 00	\$2,583 33	\$1,422 22
Bergen	24	12	36	45,370 00	15,335 00	1,000 00	875 00	2,900 00	2,300 00	1,890 42	1,277 92
Burlington											
Camden	9	17	26	15,400 00	24,400 00	1,500 00	1,200 00	1,900 00	2,200 00	1,711 11	1,436 29
Cape May											
Cumberland	1	2	3	1,800 00	2,500 00	1,800 00	1,200 00	1,800 00	1,800 00	1,800 00	1,250 00
Essex	80	25	105	223,945 00	36,425 00	1,350 00	1,025 00	4,000 00	2,200 00	2,799 31	1,457 00
Gloucester											
Hudson	66	32	98	181,275 00	66,550 00	1,540 00	1,200 00	5,500 00	2,800 00	2,746 59	2,079 63
Hunterdon	2		2	4,410 00		2,100 00		2,310 00		2,205 00	
Mercer	4	22	26	10,200 00	32,755 00	1,600 00	1,200 00	3,700 00	1,900 00	2,550 00	1,453 86
Middlesex	11	7	18	19,900 00	9,535 00	1,400 00	1,150 00	2,800 00	2,235 00	1,809 09	1,369 23
Monmouth	8	3	11	14,650 00	4,450 00	1,350 00	1,250 00	2,300 00	1,600 00	1,831 25	1,483 33
Morris		2	2		3,400 00		1,300 00		2,100 00		1,700 00
Ocean											
Passaic	35	16	51	77,800 00	23,950 00	1,400 00	1,100 00	3,500 00	1,850 00	2,222 85	1,496 87
Salem											
Somerset											
Sussex	2		2	4,250 00		2,050 00		2,200 00		2,125 00	
Union	10	4	14	17,800 00	5,750 00	1,000 00	1,250 00	3,200 00	1,650 00	1,780 00	1,457 00
Warren											
Total	255	151	406	\$624,550 00	\$237,900 00	\$1,000 00	\$1,400 00	\$5,500 00	\$2,800 00	\$2,449 21	\$1,575 50

TABLE 13—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED			SUPERVISORS.										other work annual (%).
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.			
Atlantic	2	10	12	\$6,450 00	\$11,650 00	\$1,800 00	\$800 00	\$2,700 00	\$1,000 00	\$2,150 00	\$1,185 00			
Bergen														
Burlington														
Camden	1	1	2	250 00	250 00	250 00	250 00	250 00	250 00	250 00	250 00			
Cape May	1	1	2	2,100 00	2,100 00	2,100 00	2,100 00	2,100 00	2,100 00	2,100 00	2,100 00			
Cumberland	2	2	4	2,550 00	2,550 00	2,550 00	2,550 00	2,550 00	2,550 00	2,550 00	2,550 00			
Essex	2	2	4	2,675 00	2,675 00	2,675 00	2,675 00	2,675 00	2,675 00	2,675 00	2,675 00			
Gloucester														
Hudson	15	15	30	27,950 00	27,950 00	1,800 00	1,800 00	3,000 00	3,000 00	1,863 33	1,863 33			
Hunterdon														
Mercer	2	2	4	4,550 00	4,550 00	1,850 00	1,850 00	1,700 00	1,700 00	1,516 67	1,516 67			
Middlesex	1	1	2	1,800 00	1,800 00	1,800 00	1,800 00	1,300 00	1,300 00	1,300 00	1,300 00			
Monmouth														
Morris														
Ocean														
Passaic	2	5	7	2,100 00	6,676 00	1,800 00	1,800 00	1,800 00	1,850 00	1,550 00	1,525 00			
Salem														
Somerset														
Sussex														
Union														
Warren														
Total	51	41	92	\$9,550 00	\$90,700 00	\$1,800 00	\$250 00	\$2,700 00	\$3,000 00	\$1,910 00	\$1,480 45			

TABLE 15—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED			SPECIAL SUPERVISORS. (Those who assist teachers in matters pertaining to instruction in special sub- jects. Drawing, penmanship, etc. Do not include those engaged in manual training, vocational, evening school or foreign-born evening school work).							
	Men.	Women.	Total.	Aggregate Salary— Men.	Aggregate Salary— Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	1	8	9	\$1,000 00	\$7,530 00	\$1,000 00	\$400 00	\$1,000 00	\$1,450 00	\$1,000 00	\$941 25
Bergen	1	15	16	1,650 00	16,170 00	1,650 00	700 00	1,650 00	1,600 00	1,650 00	1,078 00
Burlington	2	5	7	1,700 00	3,314 00	600 00	414 00	1,100 00	850 00	850 00	662 80
Camden	2	6	8	3,700 00	7,300 00	1,800 00	1,100 00	1,900 00	1,700 00	1,850 00	1,316 66
Cape May .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland .....	.....	5	5	.....	4,500 00	.....	750 00	.....	1,000 00	.....	900 00
Essex	18	47	65	36,050 00	53,850 00	950 00	200 00	3,100 00	2,100 00	1,947 23	1,262 12
Gloucester	2	6	8	900 00	3,718 13	300 00	367 20	600 00	826 00	450 00	619 63
Hudson	12	22	34	22,750 00	27,006 00	800 00	600 00	3,400 00	2,300 00	1,895 83	1,227 55
Hunterdon	1	3	4	200 00	900 00	200 00	150 00	200 00	500 00	200 00	300 00
Mercer	1	5	6	2,000 00	6,800 00	2,000 00	1,100 00	2,000 00	1,700 00	2,000 00	1,260 00
Middlesex	4	7	11	4,550 00	6,455 00	350 00	750 00	1,600 00	1,100 00	1,137 50	922 14
Monmouth .....	.....	11	11	.....	2,750 00	.....	750 00	.....	1,500 00	.....	1,159 09
Morris	1	2	3	1,000 00	2,600 00	1,000 00	1,000 00	1,000 00	1,600 00	1,000 00	1,300 00
Ocean .....	.....	1	1	.....	800 00	.....	800 00	.....	800 00	.....	800 00
Passaic	2	5	7	3,600 00	5,660 00	1,800 00	800 00	1,800 00	1,310 00	1,800 00	1,132 00
Salem .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset	1	.....	1	1,700 00	.....	1,700 00	.....	1,700 00	.....	1,700 00	.....
Sussex .....	.....	4	4	.....	3,300 00	.....	700 00	.....	926 00	.....	826 00
Union	10	23	33	14,150 00	27,327 00	700 00	253 00	1,800 00	1,500 00	1,415 00	975 96
Warren .....	.....	4	4	.....	3,350 00	.....	700 00	.....	900 00	.....	837 50
Total	53	184	242	\$93,950 00	\$198,330 13	\$300 00	\$1,100 00	\$3,400 00	\$2,300 00	\$1,619 82	\$1,077 83

TABLE 15—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			TEACHERS, RURAL SCHOOLS—ONE ROOM. (A rural school is one located either in the open country or the village, the majority of whose pupils are the children of farmers and others living in the country).							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	3	24	27	\$2,025 00	\$14,299 00	\$675 00	\$450 00	\$675 00	\$729 00	\$675 00	\$696 79
Bergen	2	15	17	1,650 00	10,150 00	750 00	500 00	900 00	825 00	825 00	676 66
Burlington	2	30	32	1,100 00	14,872 25	550 00	405 00	550 00	650 00	550 00	495 74
Camden .....	.....	21	21	.....	10,990 50	.....	450 00	.....	600 00	.....	523 26
Cape May	2	9	11	1,260 00	5,175 00	585 00	495 00	675 00	630 00	630 00	575 00
Cumberland	1	27	28	540 00	13,167 50	540 00	405 00	540 00	650 00	540 00	457 63
Essex .....	.....	4	4	.....	2,425 00	.....	550 00	.....	675 00	.....	606 26
Gloucester	2	26	28	1,235 00	13,408 00	585 00	430 00	650 00	665 00	617 50	515 69
Hudson .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hunterdon	7	64	71	3,850 00	33,686 00	450 00	437 00	750 00	700 00	550 00	526 34
Mercer	2	13	15	1,289 00	7,735 00	600 00	550 00	689 00	650 00	644 50	596 00
Middlesex .....	.....	27	27	.....	16,320 00	.....	495 00	.....	725 00	.....	604 44
Monmouth	5	43	48	3,712 50	24,916 75	550 00	405 00	1,000 00	900 00	742 50	579 45
Morris	5	39	44	3,175 00	22,276 00	500 00	450 00	775 00	850 00	635 00	571 13
Ocean	5	29	34	3,230 00	13,790 00	405 00	378 00	850 00	650 00	646 00	473 76
Passaic	2	11	13	1,150 00	7,520 00	500 00	600 00	650 00	925 00	575 00	683 63
Salem	4	35	39	2,115 00	17,280 00	496 00	337 50	540 00	630 00	528 75	493 71
Somerset	2	43	45	1,125 00	24,925 00	550 00	500 00	576 00	650 00	562 50	579 65
Sussex	2	53	55	1,120 00	30,430 00	450 00	450 00	670 00	600 00	560 00	524 65
Union .....	.....	2	2	.....	1,500 00	.....	700 00	.....	800 00	.....	750 00
Warren	3	45	48	1,510 00	22,620 00	360 00	360 00	650 00	700 00	503 33	502 66
Total	49	565	614	\$30,086 50	\$307,486 00	\$360 00	\$337 50	\$1,000 00	\$925 00	\$614 01	\$544 22

TABLE 15—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED			TEACHERS, RURAL SCHOOLS—TWO ROOMS. (Teachers considered in the one- and two-room rural school tables are not to be considered in the grade teachers' tables).							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	2	24	26	\$1,539 00	\$15,438 00	\$720 00	\$496 00	\$819 00	\$819 00	\$769 50	\$843 25
Bergen	1	19	20	850 00	12,275 00	850 00	450 00	850 00	1,050 00	350 00	646 05
Burlington .....	.....	30	30	.....	17,250 00	.....	450 00	.....	750 00	.....	575 00
Camden .....	.....	18	18	.....	10,014 50	.....	475 00	.....	700 00	.....	556 26
Cape May	6	26	32	3,960 00	14,400 00	535 00	495 00	675 00	675 00	660 00	553 84
Cumberland	2	24	26	1,215 00	12,014 50	535 00	405 00	630 00	625 00	607 50	500 60
Essex .....	.....	4	4	.....	3,175 00	.....	725 00	.....	875 00	.....	793 75
Gloucester	3	25	28	1,697 50	19,697 50	517 50	425 00	630 00	750 00	565 83	562 78
Hudson .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hunterdon	4	14	18	3,150 00	8,265 00	750 00	475 00	850 00	750 00	787 50	590 25
Mercer .....	.....	8	8	.....	5,111 00	.....	550 00	.....	725 00	.....	633 57
Middlesex .....	.....	14	14	.....	8,750 00	.....	550 00	.....	700 00	.....	625 00
Monmouth	7	29	36	5,200 00	18,295 00	650 00	450 00	900 00	950 00	742 85	630 87
Morris	6	44	50	4,775 00	28,120 00	725 00	475 00	900 00	900 00	795 83	639 09
Ocean	4	18	22	2,475 00	8,775 00	495 00	360 00	720 00	675 00	618 75	487 50
Passaic	1	7	8	825 00	4,525 00	825 00	550 00	825 00	825 00	325 00	646 43
Salem	1	7	8	495 00	3,825 00	495 00	450 00	495 00	630 00	495 00	546 43
Somerset	2	16	18	1,500 00	9,470 00	750 00	540 00	750 00	650 00	750 00	591 57
Sussex	2	10	12	1,275 00	5,425 00	625 00	450 00	650 00	800 00	637 50	542 50
Union	2	3	5	2,280 00	1,848 00	1,080 00	500 00	1,200 00	700 00	1,140 00	616 00
Warren	5	21	26	3,300 00	10,315 00	550 00	360 00	750 00	650 00	660 00	491 19
Total	48	371	419	\$34,536 50	\$216,988 50	\$495 00	\$360 00	\$1,200 00	\$1,050 00	\$719 51	\$584 87

TABLE 15—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED			TEACHERS, KINDERGARTEN—DAY SCHOOLS.							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	29	29	58	.....	\$23,547 00	.....	\$330 00	.....	\$1,400 00	.....	\$311 62
Bergen	66	66	132	.....	48,520 00	.....	535 00	.....	1,200 00	.....	785 15
Burlington	5	5	10	.....	3,077 50	.....	551 25	.....	750 00	.....	615 50
Camden	16	16	32	.....	11,250 00	.....	600 00	.....	800 00	.....	703 12
Cape May	8	8	16	.....	1,850 00	.....	475 00	.....	700 00	.....	616 66
Cumberland .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Essex	242	242	484	.....	217,815 00	.....	450 00	.....	1,150 00	.....	900 06
Gloucester	2	2	4	.....	1,100 00	.....	550 00	.....	550 00	.....	550 00
Hudson	71	71	142	.....	69,655 00	.....	600 00	.....	1,320 00	.....	981 06
Hunterdon	1	1	2	.....	687 50	.....	687 50	.....	687 50	.....	687 50
Mercer	66	66	132	.....	47,000 00	.....	500 00	.....	1,000 00	.....	712 12
Middlesex	29	29	58	.....	20,300 00	.....	525 00	.....	960 00	.....	700 00
Monmouth	17	17	34	.....	12,595 00	.....	550 00	.....	900 00	.....	740 88
Morris	7	7	14	.....	4,975 00	.....	600 00	.....	825 00	.....	710 71
Ocean	5	5	10	.....	3,250 00	.....	575 00	.....	1,700 00	.....	650 00
Passaic	66	66	132	.....	49,600 00	.....	575 00	.....	1,750 00	.....	751 51
Salem	3	3	6	.....	1,975 00	.....	600 00	.....	700 00	.....	658 33
Somerset	14	14	28	.....	9,325 00	.....	450 00	.....	800 00	.....	666 07
Sussex	6	6	12	.....	3,900 00	.....	500 00	.....	800 00	.....	650 00
Union	45	45	90	.....	33,330 00	.....	400 00	.....	1,150 00	.....	740 66
Warren .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	693	693	1386	.....	\$563,752 00	.....	\$400 00	.....	\$1,400 00	.....	\$313 49

TABLE 15—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED			TEACHERS, GRADES 1 TO 4, INCLUSIVE—DAY SCHOOLS.							
	Men.	Women.	Total	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	178	178	178	.....	\$143,929 95	.....	\$450 00	.....	\$1,400 00	.....	\$508 59
Bergen	547	547	547	.....	387,410 00	.....	485 00	.....	1,100 00	.....	708 24
Burlington	157	157	157	.....	86,492 50	.....	420 00	.....	750 00	.....	550 91
Camden	406	406	406	.....	281,745 00	.....	427 50	.....	1,200 00	.....	696 96
Cape May	52	52	53	.....	31,716 25	.....	475 00	.....	800 00	.....	609 92
Cumberland	1	122	123	.....	65,636 50	.....	405 00	.....	725 00	.....	538 00
Essex	1	1,197	1,197	.....	1,131,157 00	.....	550 00	.....	1,400 00	.....	944 99
Gloucester	97	97	97	.....	54,832 56	.....	450 00	.....	765 00	.....	565 28
Hudson	1,065	1,065	1,065	.....	1,051,012 20	.....	500 00	.....	1,660 00	.....	959 82
Hunterdon	38	38	38	.....	22,647 50	.....	450 00	.....	800 00	.....	595 98
Mercer	233	233	233	.....	203,975 00	.....	500 00	.....	1,100 00	.....	720 76
Middlesex	336	336	336	.....	240,712 00	.....	525 00	.....	1,100 00	.....	716 40
Monmouth	1	233	233	.....	162,772 50	.....	450 00	.....	902 50	.....	701 60
Morris	133	133	133	.....	92,953 00	.....	500 00	.....	1,150 00	.....	693 89
Ocean	40	40	40	.....	22,393 00	.....	423 00	.....	800 00	.....	559 82
Passaic	519	519	519	.....	377,230 00	.....	550 00	.....	1,150 00	.....	726 84
Salem	74	74	74	.....	41,321 25	.....	450 00	.....	750 00	.....	558 39
Somerset	83	83	83	.....	55,265 00	.....	500 00	.....	900 00	.....	673 96
Sussex	35	35	35	.....	23,722 00	.....	500 00	.....	850 00	.....	649 20
Union	3	372	375	.....	282,636 66	.....	450 00	.....	1,100 00	.....	759 77
Warren	78	78	78	.....	45,785 00	.....	400 00	.....	780 00	.....	586 99
Total	6	6,073	6,079	\$5,218 00	\$4,804,344 87	\$423 00	\$400 00	\$1,250 00	\$1,660 00	\$869 66	\$791 09

TABLE 15—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED			TEACHERS, GRADES 6 TO 8, INCLUSIVE—DAY SCHOOLS.							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	9	126	134	\$8,024 00	\$109,017 00	\$675 00	\$495 00	\$1,158 00	\$1,400 00	\$891 53	\$872 13
Bergen	31	384	415	36,775 00	304,290 00	800 00	450 00	2,000 00	1,350 00	1,186 29	792 24
Burlington	4	94	98	3,190 00	61,043 75	700 00	450 00	1,900 00	1,050 00	797 50	649 40
Camden	3	264	272	7,500 00	204,611 50	650 00	450 00	1,400 00	1,150 00	937 50	775 04
Cape May	5	24	29	4,187 50	23,495 00	630 00	522 50	1,000 00	900 00	837 50	691 03
Cumberland	11	88	99	8,105 00	53,002 00	450 00	414 00	950 00	900 00	736 82	602 29
Essex	40	839	929	48,630 00	918,327 50	700 00	550 00	1,700 00	1,700 00	1,090 50	1,032 98
Gloucester	2	66	68	1,830 00	42,734 05	630 00	472 50	1,200 00	850 00	915 00	647 48
Hudson	7	850	857	7,895 00	905,583 41	800 00	550 00	1,500 00	1,956 00	1,127 86	1,065 39
Hunterdon	4	26	30	3,380 00	16,944 00	630 00	800 00	1,000 00	800 00	845 00	651 69
Mercer	4	163	167	3,701 00	126,845 00	800 00	500 00	1,200 00	1,100 00	925 25	778 19
Middlesex	13	194	207	14,700 00	153,923 00	800 00	525 00	1,400 00	1,100 00	1,130 76	793 41
Monmouth	22	155	177	26,790 00	119,920 00	700 00	525 00	1,700 00	1,150 00	1,172 27	773 67
Morris	13	96	108	13,935 00	73,327 00	800 00	500 00	1,350 00	1,200 00	1,071 92	771 86
Ocean	4	29	33	4,320 00	18,470 00	810 00	495 00	1,600 00	900 00	1,080 00	636 90
Passaic	12	395	407	12,975 00	337,520 00	775 00	550 00	1,400 00	1,200 00	1,081 25	854 48
Salem	2	54	56	1,450 00	33,032 50	700 00	450 00	750 00	860 00	725 00	611 71
Somerset	6	52	58	6,425 00	39,650 00	675 00	500 00	1,400 00	1,100 00	1,070 83	762 50
Sussex	4	24	28	3,725 00	16,825 00	625 00	500 00	1,250 00	875 00	931 25	701 04
Union	9	257	266	9,650 00	217,847 16	850 00	550 00	1,400 00	1,300 00	1,072 66	847 65
Warren	7	40	47	5,900 00	24,680 00	650 00	400 00	950 00	1,000 00	842 35	617 00
Total	217	4,273	4,495	\$227,077 50	\$3,801,087 87	\$450 00	\$400 00	\$2,000 00	\$1,956 00	\$1,046 44	\$888 52

TABLE 15—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTRIES.		NUMBER EMPLOYED			TEACHERS, GRADES 9 TO 12, INCLUSIVE—DAY SCHOOLS.							
		Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	.....	33	42	75	\$52,750 00	\$49,986 83	\$850 00	\$900 00	\$2,500 00	\$1,400 00	\$1,679 08	\$1,163 48
Bergen	.....	46	110	156	59,475 00	114,900 00	800 00	700 00	1,975 00	1,500 00	1,292 93	1,044 54
Burlington	.....	5	37	42	5,550 00	30,753 75	850 00	700 00	1,400 00	1,200 00	1,110 00	831 33
Camden	.....	16	68	84	22,070 00	66,125 00	320 00	625 00	1,800 00	1,800 00	1,379 37	972 42
Cape May	.....	16	14	30	18,417 50	11,177 50	665 00	600 00	1,650 00	1,000 00	1,151 10	786 39
Cumberland	.....	13	43	61	14,472 50	37,045 00	300 00	600 00	1,500 00	1,300 00	1,113 28	771 77
Essex	.....	207	259	466	432,485 00	343,089 00	1,000 00	500 00	3,400 00	2,200 00	2,089 29	1,324 06
Gloucester	.....	4	28	32	4,300 00	21,390 00	900 00	650 00	1,300 00	900 00	1,075 00	763 93
Hudson	.....	137	177	314	275,356 00	261,692 93	760 00	775 00	4,200 00	2,400 00	2,009 90	1,473 49
Hunterdon	.....	4	23	27	5,125 00	21,035 00	900 00	600 00	1,750 00	1,050 00	1,281 25	809 03
Mercer	.....	35	85	120	51,878 00	87,456 00	900 00	550 00	2,350 00	1,500 00	1,432 23	1,023 89
Middlesex	.....	18	49	67	28,750 00	50,690 00	950 00	700 00	2,600 00	1,300 00	1,597 23	1,034 48
Monmouth	.....	23	85	108	30,475 00	82,482 50	850 00	650 00	2,400 00	1,500 00	1,325 00	970 33
Morris	.....	19	43	62	23,625 00	42,580 00	700 00	650 00	1,700 00	1,200 00	1,243 42	887 08
Ocean	.....	6	20	26	7,500 00	15,550 00	850 00	600 00	1,500 00	1,050 00	1,250 00	777 50
Passaic	.....	52	71	123	82,376 00	82,340 00	1,000 00	850 00	2,310 00	1,500 00	1,584 15	1,159 71
Salem	.....	8	19	27	8,060 00	14,152 50	760 00	570 00	1,500 00	1,000 00	1,007 50	744 87
Somerset	.....	9	30	39	13,450 00	26,625 00	1,000 00	550 00	1,800 00	1,200 00	1,494 44	887 50
Sussex	.....	8	13	21	8,475 00	10,325 00	900 00	650 00	1,400 00	975 00	1,059 37	794 23
Union	.....	46	102	148	74,150 00	114,350 00	1,000 00	700 00	2,100 00	1,475 00	1,611 96	1,121 07
Warren	.....	11	22	33	12,970 00	17,835 00	900 00	600 00	1,400 00	1,000 00	1,179 08	810 63
Total	.....	715	1,354	2,069	\$1,232,710 00	\$1,601,586 06	\$320 00	\$500 00	\$4,200 00	\$2,400 00	\$1,724 07	\$1,109 00

TABLE 15—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED			SHORT TERM TEACHERS—DAY SCHOOLS.							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	1	2	3	\$570 00	\$675 00	\$570 00	\$250 00	\$570 00	\$425 00	\$570 00	\$337 50
Bergen .....	.....	7	7	.....	3,657 50	.....	387 50	.....	900 00	.....	523 50
Burlington	2	7	9	920 00	1,545 00	240 00	200 00	680 00	300 00	460 00	220 71
Camden .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cape May .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Essex	1	8	9	1,300 00	3,918 00	1,300 00	400 00	1,300 00	837 00	1,300 00	489 75
Gloucester .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hudson	1	5	6	537 00	4,544 00	537 00	560 00	537 00	1,320 00	537 00	908 80
Hunterdon .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mercer .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Middlesex .....	.....	1	1	.....	165 00	.....	165 00	.....	165 00	.....	165 00
Monmouth .....	.....	2	2	.....	1,150 00	.....	400 00	.....	750 00	.....	575 00
Morris	2	2	4	1,430 00	900 00	280 00	300 00	1,150 00	600 00	715 00	450 00
Ocean .....	.....	1	1	.....	600 00	.....	600 00	.....	600 00	.....	600 00
Passaic .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Salem .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset .....	.....	1	1	.....	392 00	.....	392 00	.....	392 00	.....	392 00
Sussex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Union	2	1	3	1,960 00	250 00	360 00	250 00	1,600 00	250 00	980 00	250 00
Warren .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	9	37	46	\$6,717 00	\$17,796 50	\$240 00	\$165 00	\$1,600 00	\$1,320 00	\$746 33	\$480 96

TABLE 15—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED			SUBSTITUTE TEACHERS—DAY SCHOOLS. (One not assigned to a regular class or one teaching a class for less than four months).							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	2	2	4	\$1,800 00	\$937 50	\$700 00	\$87 50	\$1,100 00	\$350 00	\$900 00	\$468 75
Bergen	3	3	.....	5,416 00	.....	186 00	.....	1,200 00	.....	677 00
Burlington	2	2	.....	870 00	.....	195 00	.....	675 00	.....	435 00
Camden	16	16	.....	8,950 00	.....	550 00	.....	700 00	.....	559 37
Cape May
Cumberland	1	3	3	800 00	1,725 00	800 00	525 00	800 00	650 00	800 00	575 00
Essex	2	3	.....	1,650 00	.....	750 00	800 00	900 00	800 00	825 00
Gloucester
Hudson	4	4	.....	890 20	.....	106 00	.....	396 70	.....	143 28
Hunterdon
Mercer	10	10	.....	4,000 00	.....	400 00	.....	400 00	.....	400 00
Middlesex	7	7	.....	2,982 50	.....	67 50	.....	550 00	.....	426 07
Monmouth	3	3	.....	1,950 00	.....	600 00	.....	750 00	.....	650 00
Morris
Ocean
Passaic
Salem
Somerset
Sussex
Union	2	2	.....	1,350 00	.....	550 00	.....	800 00	.....	675 00
Warren	1	1	2	1,500 00	500 00	1,500 00	500 00	1,500 00	500 00	1,500 00	500 00
Total	4	60	64	\$4,100 00	\$31,221 20	\$700 00	\$67 50	\$1,500 00	\$1,200 00	\$1,025 00	\$520 35

TABLE 15--Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED			SPECIAL TEACHERS--UNGRADED, BACKWARD AND INCORRIGIBLE CLASSES--DAY SCHOOLS.							
	Men.	Women.	Total	Aggregate Salary--Men.	Aggregate Salary--Women.	Minimum--Men.	Minimum--Women.	Maximum--Men.	Maximum--Women.	Average--Men.	Average--Women.
Atlantic .....	.....	9	9	.....	\$6,350 00	.....	\$900 00	.....	\$1,000 00	.....	\$705 55
Bergen .....	.....	7	7	.....	4,625 00	.....	535 00	.....	800 00	.....	680 71
Burlington .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Camden	2	3	5	\$2,100 00	2,400 00	\$1,000 00	600 00	\$1,100 00	900 00	\$1,050 00	800 00
Cape May .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Essex	4	5	9	5,100 00	7,900 00	800 00	1,300 00	1,500 00	1,800 00	1,275 00	1,530 00
Gloucester .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hudson	1	11	12	1,000 00	12,790 00	1,000 00	775 00	1,000 00	1,700 00	1,000 00	1,162 72
Hunterdon .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mercer .....	.....	3	3	.....	2,500 00	.....	650 00	.....	950 00	.....	833 33
Middlesex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Monmouth .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Morris .....	.....	3	3	.....	2,425 00	.....	775 00	.....	850 00	.....	808 23
Ocean .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Passaic .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Salem .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sussex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Union	1	2	3	1,300 00	1,520 00	1,300 00	570 00	1,300 00	950 00	1,300 00	760 00
Warren .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	8	43	51	\$9,500 00	\$40,510 00	\$800 00	\$535 00	\$1,500 00	\$1,800 00	\$1,157 50	\$942 09

TABLE 15—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED			SPECIAL TEACHERS—TEACHER CLERKS—DAY SCHOOLS. (Regularly certificated teacher used as temporary substitute and general assistant to the principal).							
	Men.	Women.	Total.	Aggregate Salary— Men.	Aggregate Salary— Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	1	1	.....	\$340 00	.....	\$340 00	.....	\$340 00	.....	\$340 00
Bergen	10	10	.....	7,800 00	.....	600 00	.....	1,000 00	.....	730 00
Burlington	4	4	.....	2,390 00	.....	440 00	.....	700 00	.....	597 50
Camden	3	3	.....	1,775 00	.....	550 00	.....	625 00	.....	591 67
Cape May	1	1	.....	500 00	.....	500 00	.....	500 00	.....	500 00
Cumberland	2	2	.....	1,155 00	.....	550 00	.....	605 00	.....	577 50
Essex	81	81	.....	70,430 00	.....	600 00	.....	1,400 00	.....	869 50
Gloucester
Hudson	38	38	.....	39,347 50	.....	500 00	.....	1,800 00	.....	1,035 46
Hunterdon
Mercer	3	3	.....	1,450 00	.....	400 00	.....	600 00	.....	483 33
Middlesex	2	2	.....	1,550 00	.....	640 00	.....	910 00	.....	775 00
Monmouth	4	4	.....	2,632 50	.....	200 00	.....	907 50	.....	653 12
Morris	2	2	.....	1,275 00	.....	425 00	.....	850 00	.....	637 50
Ocean	1	1	.....	575 00	.....	575 00	.....	575 00	.....	575 00
Passaic	9	9	.....	5,700 00	.....	600 00	.....	800 00	.....	633 33
Salem	1	1	.....	525 00	.....	525 00	.....	525 00	.....	525 00
Somerset	3	3	.....	2,600 00	.....	750 00	.....	950 00	.....	806 66
Sussex
Union
Warren	27	27	.....	17,125 00	.....	520 00	.....	800 00	.....	634 25
Total	192	192	.....	\$157,670 00	.....	\$200 00	.....	\$1,800 00	.....	\$321 20

TABLE 15—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED			MANUAL TRAINING TEACHERS—EVENING SCHOOLS. (Include supervisors and teachers devoting full time to the work. Those not devoting full time should be classed as regular day school teachers and not M. T. teachers).							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Average—Women.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average Men.
Atlantic .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bergen .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Burlington .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Camden	2	.....	2	\$348 00	.....	\$2 00	.....	\$2 20	.....	\$2 00	.....
Cape May .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Essex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gloucester .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hudson	3	2	5	544 00	\$320 00	2 50	\$2 50	3 00	\$2 50	2 50	\$2 29
Hunterdon .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mercer	8	6	14	1,256 64	3,197 70	2 00	2 50	2 50	2 50	2 38	2 50
Middlesex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Monmouth .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Morris .....	.....	1	1	.....	122 00	.....	2 00	.....	2 00	.....	2 00
Ocean .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Passaic	8	.....	8	1,280 00	.....	2 50	.....	2 50	.....	2 50	.....
Salem .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sussex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Union	1	1	2	192 00	192 00	3 00	3 00	3 00	3 00	3 00	3 00
Warren .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	22	10	32	\$3,620 64	\$3,831 70	\$2 00	\$2 00	\$3 00	\$3 00	\$3 42	\$5 63

TABLE 15—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTRIES.		NUMBER EMPLOYED.			MANUAL TRAINING TEACHERS—DAY SCHOOLS. (Include supervisors and teachers devoting full time to the work. Those not devoting full time should be classed as regular day school teachers and not M. T. teachers).							
		Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic		7	9	16	\$7,510 00	\$8,192 00	\$260 00	\$750 00	\$1,500 00	\$1,300 00	\$1,072 75	\$910 23
Bergen		22	27	49	26,650 00	24,775 00	500 00	600 00	1,850 00	1,250 00	1,211 36	917 59
Burlington		2	5	7	1,650 00	2,950 00	650 00	200 00	1,000 00	950 00	825 00	590 00
Camden		4	8	12	4,550 00	7,350 00	800 00	750 00	1,900 00	1,100 00	1,137 50	913 75
Cape May		3	3	6	3,650 00	2,186 25	1,150 00	600 00	1,300 00	850 00	1,216 66	723 75
Cumberland		4	7	11	4,250 00	5,650 00	750 00	600 00	1,400 00	900 00	1,063 50	807 14
Essex		43	46	89	56,075 00	51,390 00	450 00	700 00	2,000 00	1,700 00	1,304 06	1,117 17
Gloucester		2	5	7	1,300 00	3,751 88	350 00	561 00	950 00	850 00	650 00	750 37
Hudson		29	44	73	40,668 92	50,899 52	1,000 00	650 00	2,300 00	1,800 00	1,402 37	1,156 31
Hunterdon												
Mercer		8	11	19	9,545 00	10,680 00	795 00	550 00	2,300 00	1,550 00	1,193 12	970 91
Middlesex		8	19	27	9,950 00	15,400 00	750 00	280 00	1,900 00	1,050 00	1,243 75	812 63
Monmouth		8	18	26	11,300 00	17,508 30	950 00	700 00	2,000 00	1,300 00	1,412 50	973 63
Morris		4	10	14	4,800 00	9,850 00	1,000 00	725 00	1,600 00	1,275 00	1,200 00	965 00
Ocean		1	2	3	1,100 00	1,800 00	1,100 00	900 00	1,100 00	900 00	1,100 00	900 00
Passaic		19	18	37	20,900 00	15,155 00	240 00	200 00	2,500 00	1,500 00	1,100 00	841 94
Salem		3	4	7	2,190 00	2,776 00	90 00	575 00	1,100 00	800 00	730 00	603 75
Somerset		3	3	6	3,600 00	2,625 00	900 00	725 00	1,350 00	1,100 00	1,200 00	875 00
Sussex		2	3	5	2,100 00	2,400 00	900 00	650 00	1,200 00	950 00	1,050 00	800 00
Union		20	20	40	23,830 00	15,536 00	400 00	171 00	2,000 00	1,500 00	1,141 50	776 30
Warren		2	4	6	2,600 00	3,050 00	1,200 00	600 00	1,400 00	1,000 00	1,300 00	763 50
Total		194	296	490	\$237,218 92	\$253,983 96	\$90 00	\$171 00	\$2,500 00	\$1,800 00	\$1,222 78	\$854 33

TABLE 15--Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTY.	NUMBER EMPLOYED			VOCATIONAL TEACHERS--EVENING SCHOOLS. (Teachers employed both day and evening are classed as holding two teaching positions).							
	Men.	Women.	Total.	Aggregate Salary--Men.	Aggregate Salary--Women.	Minimum--Men.	Minimum--Women.	Maximum--Men.	Maximum--Women.	Average--Men.	Average--Women.
Atlantic	1	2	3	\$81 00	\$162 00	\$3 00	\$3 00	\$3 00	\$3 00	\$3 00	\$3 00
Bergen											
Burlington											
Camden											
Cape May											
Cumberland											
Essex	60	37	97	20,229 75	9,410 00	4 00	3 00	4 00	4 00	4 00	\$ 93
Gloucester											
Hudson	26	10	45	8,083 00	2,383 00	2 50	2 50	5 00	3 00	3 30	\$ 40
Hunterdon											
Mercer											
Middlesex		2	2		140 00		3 50		3 50		3 50
Monmouth											
Morris	1		1	50 00		10 00		10 00		10 00	
Ocean											
Passaic	10	27	37	1,507 85	4,317 60	2 50	2 50	2 50	2 50	2 50	2 50
Salem											
Somerset											
Sussex											
Union											
Warren											
Total	107	73	185	\$39,956 60	\$16,412 60	\$2 50	\$2 50	\$10 00	\$4 00	\$4 11	\$3 09

TABLE 15—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED			VOCATIONAL TEACHERS—DAY SCHOOLS. (Teachers employed both day and evening are classed as holding two teaching positions).							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	7	11	18	\$9,700 00	\$10,300 00	\$900 00	\$900 00	\$1,700 00	\$1,550 00	\$1,335 71	\$935 45
Bergen .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Burlington .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Camden .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cape May .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Essex	17	18	35	23,082 00	19,900 00	775 00	775 00	2,700 00	2,200 00	1,357 76	1,105 55
Gloucester .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hudson	14	21	35	23,050 00	27,772 00	1,200 00	600 00	2,900 00	1,776 00	1,646 42	1,323 48
Hunterdon .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mercer .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Middlesex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Monmouth .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Morris .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ocean .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Passaic	9	2	11	12,150 00	2,150 00	1,000 00	1,000 00	1,900 00	1,150 00	1,350 00	1,076 00
Salem .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sussex	3	2	5	3,400 00	2,000 00	1,000 00	900 00	1,200 00	1,100 00	1,133 33	1,000 00
Union .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Warren .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	50	54	104	\$71,382 00	\$62,122 00	\$775 00	\$900 00	\$2,900 00	\$2,200 00	\$1,427 64	\$1,150 41

TABLE 15—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED			EVENING SCHOOL TEACHERS. (Teachers considered in the day school tables and teaching in the evening schools will also be considered in this table. Do not include foreign-born evening school teachers).							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men. (Per Night).	Minimum—Women. (Per Night).	Maximum—Men. (Per Night).	Maximum—Women. (Per Night).	Average—Men. (Per Night).	Average—Women. (Per Night).
Atlantic	7	15	22	\$1,201 50	\$2,018 00	\$2 00	\$2 00	\$4 00	\$3 00	\$2 81	\$2 20
Bergen	1	1	2	80 00	80 00	1 25	1 25	1 25	1 25	1 25	1 25
Burlington	14	3	17	2,391 00	516 50	1 62	1 79	2 83	2 13	2 37	2 39
Camden	2	1	3	160 00	80 00	1 25	1 25	1 25	1 25	1 25	1 25
Cape May	1	4	5	200 00	680 00	2 50	2 53	2 50	2 53	2 73	2 26
Cumberland	192	181	373	47,923 75	35,969 75	2 25	2 50	5 00	4 00	3 20	2 54
Essex	60	94	154	11,478 50	12,478 00	2 00	1 90	7 50	4 50	2 73	1 89
Gloucester	17	33	50	3,197 70	5,009 40	2 00	2 00	3 50	3 00	2 85	2 30
Hudson	4	14	18	870 00	1,984 00	2 50	1 50	4 47	3 00	3 29	2 14
Hunterdon	3	4	7	416 00	512 00	2 00	2 00	2 50	2 00	2 00	1 85
Mercer	6	7	13	944 00	1,118 00	2 00	2 00	3 00	3 00	2 45	2 50
Middlesex	36	34	70	6,166 61	5,035 13	1 84	2 00	2 81	2 56	2 59	2 24
Monmouth											
Morris											
Ocean											
Passaic											
Salem											
Somerset											
Sussex											
Union	30	21	51	5,387 00	3,069 00	2 50	2 50	5 00	3 00	2 50	2 05
Warren											
Total	373	412	785	\$80,416 06	\$68,549 78	\$1 25	\$1 25	\$7 50	\$4 50	\$3 17	\$2 45

TABLE 15—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED			TEACHERS IN EVENING SCHOOLS FOR FOREIGN-BORN RESIDENTS. (Receiving State Aid).							
	Men.	Women.	Total.	Aggregate Salary— Men.	Aggregate Salary— Women.	Minimum—Men. (Per Night).	Minimum—Women. (Per Night).	Maximum—Men. (Per Night).	Maximum—Women. (Per Night).	Average—Men. (Per Night).	Average—Women. (Per Night).
Atlantic	2	1	3	416 50	\$178 50	\$3 50	\$3 00	\$3 50	\$3 00	\$3 41	\$2 92
Bergen											
Burlington											
Camden	1	1	2	190 00	187 50	2 50	2 50	2 50	2 50	2 50	2 50
Cape May											
Cumberland											
Essex											
Gloucester											
Hudson	9	19	28	1,746 00	3,168 00	2 00	2 00	4 00	3 50	2 77	2 38
Hunterdon											
Mercer											
Middlesex											
Monmouth											
Morris											
Ocean											
Passaic	2	10	12	408 80	1,182 29	3 00	3 00	4 00	4 00	3 18	2 41
Salem											
Somerset	1	1	2	128 00	128 00	2 00	2 00	2 00	2 00	1 94	1 94
Sussex											
Union	2	3	5	226 50	189 00	3 00	3 00	3 00	3 00	3 00	3 00
Warren											
Total	17	35	52	\$3,110 80	\$5,031 29	\$2 00	\$2 00	\$4 00	\$4 00	\$2 69	\$2 11

TABLE 15—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED			SPECIAL TEACHERS, SUB-NORMAL CLASSES—DAY SCHOOLS. (Include only those for which an apportionment of \$500 will be made).							
	Men.	Women.	Total.	Aggregate Salary— Men.	Aggregate Salary— Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	1	5	6	\$350 00	\$4,700 00	\$850 00	\$750 00	\$850 00	\$1,150 00	\$850 00	\$940 00
Bergen		7	7		7,250 00		950 00		1,350 00		1,085 71
Burlington		1	1		750 00		750 00		750 00		750 00
Camden		11	11		8,750 00		650 00		900 00		795 45
Cape May		1	1		760 00		760 00		760 00		760 00
Cumberland		4	4		2,950 00		625 00		825 00		737 50
Essex	1	52	53	1,000 00	59,825 00	1,000 00	800 00	1,000 00	1,400 00	1,000 00	1,150 48
Gloucester											
Hudson		22	22		30,467 00		900 00		1,520 00		1,384 86
Hunterdon											
Mercer		18	18		18,500 00		900 00		1,100 00		1,027 78
Middlesex		6	6		5,540 00		840 00		1,000 00		923 33
Monmouth		3	3		2,770 00		700 00		1,045 00		923 33
Morris		1	1		1,000 00		1,000 00		1,000 00		1,000 00
Ocean											
Pascale		15	15		13,550 00		600 00		1,200 00		903 33
Salem											
Somerset		3	3		2,525 00		750 00		900 00		841 66
Sussex		2	2		1,850 00		900 00		950 00		925 00
Union	2	9	11	2,100 00	8,450 00	900 00	700 00	1,200 00	1,200 00	1,050 00	938 88
Warren											
Total	4	160	164	\$3,950 00	\$169,637 00	\$850 00	\$600 00	\$1,200 00	\$1,520 00	\$987 50	\$1,060 23

TABLE 15—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED			SPECIAL TEACHERS, DEAF CLASSES—DAY SCHOOLS. (Include only those for which an apportionment of \$500 will be made).							
	Men.	Women.	Total.	Aggregate Salary— Men.	Aggregate Salary— Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic											
Bergen											
Burlington											
Camden											
Cape May											
Cumberland											
Essex	11		11		\$16,500 00		\$1,100 00		\$2,100 00		\$1,500 00
Gloucester											
Hudson	1		1		1,100 00		1,100 00		1,100 00		1,100 00
Hunterdon											
Mercer											
Middlesex											
Monmouth											
Morris											
Ocean											
Passaic											
Salem											
Somerset											
Sussex											
Union											
Warren											
Total		12	12		\$17,600 00		\$1,100 00		\$2,100 00		\$1,466 66

TABLE 15—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED			SPECIAL TEACHERS, BLIND CLASSES—DAY SCHOOLS. (Include only those for which an apportionment of \$600 will be made).							
	Men.	Women.	Total.	Aggregate Salary— Men.	Aggregate Salary— Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic											
Bergen											
Burlington											
Camden											
Cape May											
Cumberland											
Essex		2	2		\$3,300 00		\$1,600 00		\$1,700 00		\$1,650 00
Gloucester											
Hudson											
Hunterdon		1	1		1,200 00		1,200 00		1,200 00		1,200 00
Mercer											
Middlesex											
Monmouth											
Morris											
Ocean											
Passaic											
Salem											
Somerset											
Sussex											
Union											
Warren											
Total		3	3		\$4,500 00		\$1,200 00		\$1,700 00		\$1,500 00

TABLE 15—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED			SPECIAL TEACHERS—UNCLASSIFIED—DAY SCHOOL.							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	1	9	10	\$200 00	\$7,685 00	\$200 00	\$600 00	\$200 00	\$1,200 00	\$200 00	\$853 88
Bergen	3	19	22	3,950 00	16,025 00	1,100 00	250 00	1,600 00	1,200 00	1,316 66	959 21
Burlington .....	.....	1	1	.....	250 00	.....	250 00	.....	250 00	.....	250 00
Camden .....	.....	17	17	.....	14,800 00	.....	525 00	.....	1,500 00	.....	870 59
Cape May .....	.....	7	7	.....	5,511 25	.....	600 00	.....	907 50	.....	787 83
Cumberland .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Essex	48	66	114	65,160 00	66,896 00	750 00	650 00	1,800 00	1,805 00	1,357 50	1,013 56
Gloucester .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hudson	7	37	44	7,195 00	35,197 80	150 00	650 00	1,600 00	1,800 00	1,027 86	961 29
Hunterdon .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mercer	2	13	15	2,275 00	10,925 00	875 00	500 00	1,400 00	1,300 00	1,137 50	940 83
Middlesex .....	.....	11	11	.....	8,375 00	.....	490 00	.....	1,000 00	.....	761 26
Monmouth .....	.....	5	6	1,100 00	4,015 00	1,100 00	640 00	1,100 00	925 00	1,100 00	803 00
Morris	1	7	7	1,100 00	5,650 00	.....	500 00	.....	1,050 00	.....	907 14
Ocean .....	.....	1	2	1,000 00	875 00	1,000 00	875 00	1,000 00	875 00	1,000 00	875 00
Passaic	6	21	27	8,600 00	19,150 00	1,100 00	700 00	1,700 00	1,100 00	1,438 33	911 90
Salem	2	3	5	1,375 00	2,207 50	650 00	650 00	725 00	807 50	687 50	735 83
Somerset	2	11	13	1,650 00	9,100 00	750 00	700 00	900 00	1,100 00	825 00	837 27
Sussex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Union	2	10	12	1,500 00	6,816 00	600 00	156 00	900 00	900 00	750 00	681 00
Warren .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	75	283	313	\$94,005 00	\$213,777 55	\$200 00	\$156 00	\$1,890 00	\$1,800 00	\$1,263 40	\$898 23

TABLE 16
SUMMARY OF TEACHERS EMPLOYED.

COUNTIES.	Number of Teachers Employed Excluding Superintendents, Assistant Superintendents, Supervisors (Approved and Unapproved), Non-Teaching Principals, Special Supervisors, Manual Training, Vocational and Evening School Teachers.			Grand Total of All Teachers Employed, Day and Evening.		
	Men.	Women.	Total.	Men.	Women.	Total.
Atlantic	51	451	502	78	498	576
Bergen	83	1,199	1,282	164	1,271	1,435
Burlington	13	368	381	27	382	409
Camden	26	843	869	68	879	947
Cape May	30	147	177	39	151	190
Cumberland	28	318	346	38	379	377
Essex	302	2,822	3,124	730	3,178	3,908
Gloucester	11	254	265	21	266	287
Hudson	153	2,312	2,465	395	2,571	2,966
Hunterdon	19	169	188	23	172	195
Mercer	43	665	708	86	747	833
Middlesex	31	676	707	72	727	799
Monmouth	59	578	637	91	614	705
Morris	45	381	426	74	403	477
Ocean	20	144	164	28	147	175
Passaic	73	1,114	1,187	205	1,231	1,436
Salem	17	196	213	24	200	224
Somerset	21	255	276	32	259	291
Sussex	16	140	164	24	157	181
Union	67	832	899	161	922	1,083
Warren	27	207	234	34	215	249
Total	1,135	14,079	15,214	2,414	15,329	17,743

TABLE 17
TEACHERS IN DAY SCHOOLS PAID THE DIFFERENT ANNUAL SALARIES.

COUNTIES.	AMOUNT OF SALARY PAID.																					
	(This table includes everything but evening, vocational (day and evening), manual training (day and evening) and foreign-born evening school teachers).																					
	Less than \$300—Men.	Less than \$300—Women.	\$300 to \$399—Men.	\$300 to \$399—Women.	\$400 to \$499—Men.	\$400 to \$499—Women.	\$500 to \$599—Men.	\$500 to \$599—Women.	\$600 to \$699—Men.	\$600 to \$699—Women.	\$700 to \$799—Men.	\$700 to \$799—Women.	\$800 to \$899—Men.	\$800 to \$899—Women.	\$900 to \$999—Men.	\$900 to \$999—Women.	\$1,000 to \$1,099—Men.	\$1,000 to \$1,099—Women.	\$1,100 to \$1,199—Men.	\$1,100 to \$1,199—Women.		
Atlantic	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Bergen	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Burlington	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Camden	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Cape May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Cumberland	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Essex	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Gloucester	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Hudson	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Hunterdon	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Mercer	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Middlesex	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Monmouth	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Morris	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Ocean	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Passaic	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Salem	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Somerset	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Sussex	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Union	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Warren	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Total	5	18	5	18	13	13	427	26	1,594	48	2,800	45	2,232	63	2,080	65	1,899	103	1,202	76	896	

TABLE 17—Continued

TEACHERS IN DAY SCHOOLS PAID THE DIFFERENT ANNUAL SALARIES.

COUNTIES.	AMOUNT OF SALARY PAID.																							
	\$1,200 to \$1,299—Men.	\$1,200 to \$1,299—Women.	\$1,300 to \$1,399—Men.	\$1,300 to \$1,399—Women.	\$1,400 to \$1,499—Men.	\$1,400 to \$1,499—Women.	\$1,500 to \$1,599—Men.	\$1,500 to \$1,599—Women.	\$1,600 to \$1,699—Men.	\$1,600 to \$1,699—Women.	\$1,700 to \$1,799—Men.	\$1,700 to \$1,799—Women.	\$1,800 to \$1,899—Men.	\$1,800 to \$1,899—Women.	\$1,900 to \$1,999—Men.	\$1,900 to \$1,999—Women.	\$2,000 to \$2,499—Men.	\$2,000 to \$2,499—Women.	\$2,500 to \$2,999—Men.	\$2,500 to \$2,999—Women.	\$3,000 and Over—Men.	\$3,000 and Over—Women.		
Atlantic	2	10	2	16	2	24	1	6	5	2	4	...	1	...	2	...	13	...	4	...	...	3	...
Bergen	18	26	10	14	9	6	...	1	11	1	3	...	7	...	5	...	14	...	10	...	...	3	...
Burlington	1	1	2	...	1	...	1	1	...	...	1	...	2	...	...	...	1	...	1	...	...	...	...
Camden	2	3	...	7	1	5	...	3	9	3	5	...	4	...	...	...	3	...	2	...	...	...	...
Cape May	3	...	2	...	1	...	...	...	3	...	1	...	...	...	...	...	2	...	...	...	...	...	...
Cumberland	2	1	1	2	...	...	2	...	...	...	...	...	1	...	...	...	2	...	...	...	...	...	...
Essex	17	192	20	183	30	47	...	35	21	36	15	...	22	...	4	...	91	19	52	...	...	65	...
Gloucester	2	1	1	...	...	...	3	...	...	48	1	...	...	...	...	...	1	...	1	...	...	...	...
Hudson	9	328	7	323	8	33	...	8	7	...	20	...	12	...	8	...	72	41	49	5	...	33	...	
Hunterdon .....	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...
Mercer	3	20	7	3	5	8	...	4	5	4	3	...	2	...	...	...	7	1	1	...	...	...	...
Middlesex	6	9	1	10	7	...	7	...	4	...	1	...	2	...	10	...	5	2	2	1	...	...	...
Monmouth	11	13	5	4	5	...	9	...	4	2	1	...	5	...	...	...	7	...	2	...	...	...	...
Morris	5	4	2	1	4	...	4	...	1	1	2	...	...	...	...	...	5	1	2	...	...	...	...
Ocean	5	...	...	...	...	...	3	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Passaic	6	24	9	9	12	20	...	8	7	...	5	...	18	...	8	...	20	...	11	...	5	...	...
Salem	1	...	...	...	...	...	3	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...
Somerset	1	2	1	...	1	...	3	...	3	...	2	...	...	...	...	...	...	...	2	...	...	...	...
Sussex	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...
Union	6	28	10	23	16	8	...	8	8	2	4	...	12	...	2	...	8	1	2	...	...	...	...
Warren	3	...	2	...	1	...	2	...	1	...	...	...	...	...	...	...	1	...	1	...	...	...	...
Total	104	662	82	595	104	151	107	93	91	99	69	40	90	63	43	23	256	68	140	6	126	16,126

TABLE 18
PROFESSIONAL TRAINING OF TEACHERS.

COUNTIES.	NORMAL GRADUATES.						Number of College Graduates.	Not Graduates of Higher Institutions.	Graduates of Other Institutions Beyond High School.	Total.
	Trenton Normal School.					Other Normal Schools.				
	Trenton Normal School.	Montclair Normal School.	Newark Normal School.	City Training Schools.	Other Normal Schools.					
Atlantic	104	15	1	8	221	118	109	.....	576
Bergen	273	187	104	36	446	240	121	.....	1,407
Burlington	123	2	2	10	42	42	181	.....	407
Camden	136	2	1	183	150	103	302	.....	926
Cape May	36	.....	1	9	29	39	73	.....	187
Cumberland	97	3	3	.....	44	62	163	.....	372
Essex	263	252	391	806	916	542	182	87	2,498	
Gloucester	48	.....	1	.....	62	38	138	.....	237
Hudson	241	231	120	1,094	363	378	307	.....	2,734
Hunterdon	51	3	3	.....	10	32	96	.....	196
Mercer	282	2	2	218	51	110	104	.....	769
Middlesex	285	33	83	5	127	89	157	.....	779
Monmouth	206	19	20	4	149	124	176	.....	698
Morris	97	52	19	16	66	79	133	.....	462
Ocean	37	5	3	.....	38	37	65	.....	176
Passaic	96	107	65	554	214	172	102	.....	1,309
Salem	44	.....	2	.....	33	34	111	.....	224
Somerset	79	10	10	15	78	45	52	.....	289
Sussex	37	6	7	8	29	22	72	.....	131
Union	111	36	52	233	295	209	89	.....	1,025
Warren	38	7	6	.....	13	32	143	.....	249
Total	2,737	972	896	3,193	3,381	2,537	2,881	87	16,639	

TABLE 19
ENROLLMENT IN DAY SCHOOLS.

COUNTIES.	Number of Pupils Enrolled in One-Room Rural Schools.			Number of Pupils Enrolled in Two-Room Rural Schools.			Number of Pupils Enrolled in Kindergarten.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Atlantic	347	355	702	494	373	797	590	592	1,182
Bergen	314	288	602	403	347	750	1,543	1,604	3,147
Burlington	680	664	1,344	607	522	1,129	1,566	1,445	3,011
Camden	437	415	852	335	343	678	752	743	1,495
Cape May	131	169	300	396	376	772	63	70	133
Cumberland	504	414	918	420	377	797	797	797	1,594
Essex	69	66	135	78	82	160	7,761	7,463	15,224
Gloucester	457	431	888	687	627	1,314	47	61	108
Hudson	1,225	1,199	2,424	309	329	638	2,428	2,255	4,683
Hunterdon	280	247	527	147	128	275	57	58	115
Mercer	475	474	949	286	276	562	1,334	1,421	2,755
Middlesex	952	835	1,787	733	645	1,378	815	797	1,612
Monmouth	684	633	1,317	843	833	1,676	439	447	886
Morris	436	339	825	329	303	632	185	182	367
Ocean	245	220	465	154	128	282	59	69	128
Passaic	753	650	1,403	136	112	248	2,539	2,309	4,848
Salem	775	679	1,454	296	238	534	58	63	121
Somerset	852	792	1,644	182	163	345	271	286	557
Sussex	35	30	65	97	84	181	193	195	388
Union	736	678	1,414	427	382	809	927	881	1,808
Warren									
Total	10,387	9,628	20,015	7,294	6,668	13,962	20,217	19,641	39,858

TABLE 19—Continued
ENROLLMENT IN DAY SCHOOLS.

COUNTIES.	Number of Pupils Enrolled in Grades I to IV, Inclusive.			Number of Pupils Enrolled in Grades V to VIII, Inclusive.			Number of Pupils Enrolled in Grades IX to XII, Inclusive.			Number of Pupils Enrolled in Sub-Normal Classes.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Atlantic	3,690	3,490	7,180	2,216	2,305	4,521	770	891	1,661	60	17	77
Bergen	11,367	10,696	22,063	7,049	7,143	14,192	1,621	1,919	3,540	64	36	100
Burlington	3,529	3,194	6,723	1,719	1,980	3,649	412	641	1,053	13	2	15
Camden	8,993	8,653	17,646	4,385	4,606	8,991	900	1,104	2,004	197	81	278
Cape May	937	898	1,835	600	642	1,242	257	331	588	10	4	14
Cumberland	2,851	2,711	5,562	1,803	1,963	3,771	588	796	1,384	54	12	66
Essex	27,721	26,230	53,951	18,097	18,596	36,693	5,023	5,491	10,514	423	245	668
Gloucester	2,284	2,063	4,347	1,195	1,207	2,402	340	496	836	.....	.....	.....
Hudson	26,652	25,225	51,877	16,955	17,024	33,980	3,662	4,084	7,746	277	113	390
Hunterdon	757	771	1,528	439	535	1,024	257	416	673	.....	.....	.....
Mercer	6,308	6,031	12,339	2,836	2,915	5,751	1,356	1,726	3,081	201	108	309
Middlesex	8,046	7,459	15,505	3,771	3,842	7,613	777	967	1,744	46	40	86
Monmouth	4,835	4,549	9,384	3,110	3,269	6,379	1,176	1,520	2,696	27	15	42
Morris	3,081	2,912	5,993	2,003	1,993	3,996	761	1,090	1,791	10	10	20
Ocean	783	697	1,480	542	661	1,203	291	345	636	.....	.....	.....
Passaic	11,468	10,913	22,381	7,291	7,493	14,724	1,697	1,546	3,243	115	79	194
Salem	1,793	1,649	3,442	1,053	1,058	2,111	283	367	650	.....	.....	.....
Somerset	1,854	1,819	3,673	1,063	1,087	2,150	401	502	903	24	10	44
Sussex	766	721	1,487	476	528	1,004	186	326	512	24	6	30
Union	8,296	7,854	16,150	5,171	5,083	10,259	1,645	1,934	3,629	113	55	168
Warren	1,617	1,593	3,210	884	990	1,874	390	532	942	.....	.....	.....
Total	137,618	130,128	267,746	83,709	84,820	167,529	22,773	27,033	49,806	1,663	833	2,501

TABLE 19—Continued
ENROLLMENT IN DAY SCHOOLS.

18 ED

COUNTIES.	Number of Pupils Enrolled in Blind Classes.			Number of Pupils Enrolled in Deaf Classes.			Over Age.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Atlantic
Bergen
Burlington
Camden	2	.....	2	.....	.....	.....
Cape May
Cumberland
Essex	11	8	19	42	42	84	.....	.....	.....
Gloucester
Hudson	8	1	9	13	8	21	20	17	37
Hunterdon
Mercer
Middlesex
Monmouth
Morris
Ocean
Passaic
Salem
Somerset
Sussex
Union
Warren
Total	19	9	28	57	50	107	20	17	37

TABLE 19—Continued
ENROLLMENT IN DAY SCHOOLS.

COUNTIES.	Anaemic.			Training School for Teachers.			Open Air Classes.			Number of Pupils Enrolled During Year.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Atlantic	8,097	8,023	16,120
Bergen	22,361	22,033	44,394
Burlington	7,116	7,098	14,214
Camden	16,001	15,945	31,946
Cape May	2,384	2,490	4,874
Cumberland	6,320	6,273	12,493
Essex	59,226	58,228	117,443
Gloucester	5,010	4,285	9,295
Hudson	16	21	37	.....	104	104	.....	.....	.....	50,032	48,852	98,884
Hunterdon	2,094	2,308	4,402
Mercer	12,462	12,575	25,037
Middlesex	14,216	12,855	28,071
Monmouth	11,277	11,220	22,497
Morris	7,567	7,598	15,160
Ocean	2,440	2,464	4,904
Passaic	73	73	.....	.....	.....	23,509	22,701	46,210
Salem	4,056	3,899	7,955
Somerset	4,694	4,621	9,315
Sussex	2,679	2,721	5,400
Union	11	.....	.....	16,295	15,987	32,282
Warren	11	22	4,064	4,195	8,249
Total	16	21	37	.....	177	177	11	11	22	282,789	279,036	561,825

TABLE 20
AGES OF PUPILS ENROLLED IN DAY SCHOOLS.

COUNTIES.		NUMBER OF PUPILS BETWEEN
Atlantic		
Bergen		
Burlington		
Camden		
Cape May		
Cumberland		
Essex		
Gloucester		
Hudson		
Hunterdon		
Mercer		
Middlesex		
Monmouth		
Morris		
Ocean		
Passaic		
Salem		
Somerset		
Sussex		
Union		
Warren		
Total		

TABLE 20—Continued
AGES OF PUPILS ENROLLED IN DAY SCHOOLS.

COUNTIES.	NUMBER OF PUPILS BETWEEN									
	Eight and Nine Years of Age—Boys.	Eight and Nine Years of Age—Girls.	Nine and Ten Years of Age—Boys.	Nine and Ten Years of Age—Girls.	Ten and Eleven Years of Age—Boys.	Ten and Eleven Years of Age—Girls.	Eleven and Twelve Years of Age—Boys.	Eleven and Twelve Years of Age—Girls.	Twelve and Thirteen Years of Age—Boys.	Twelve and Thirteen Years of Age—Girls.
Atlantic	779	783	843	801	835	748	694	673	679	714
Bergen	2,265	2,274	2,243	2,175	2,170	2,138	1,973	1,989	1,900	1,900
Burlington	785	746	736	760	732	686	696	678	683	678
Camden	1,715	1,738	1,822	1,878	1,626	1,668	1,568	1,540	1,609	1,426
Cape May	220	210	211	235	218	216	198	217	241	221
Cumberland	593	568	616	661	631	611	612	560	578	599
Essex	5,560	5,564	5,603	5,553	5,321	5,341	5,034	5,100	5,088	4,839
Gloucester	506	416	519	528	483	495	472	430	456	480
Hudson	4,970	5,012	5,107	5,046	4,933	4,833	4,698	4,632	4,661	4,616
Hunterdon	285	317	311	308	302	304	311	304	279	301
Mercer	1,196	1,179	1,206	1,147	1,196	1,117	1,118	1,062	1,061	1,126
Middlesex	1,455	1,488	1,487	1,413	1,380	1,347	1,255	1,269	1,226	1,193
Monmouth	1,075	1,085	1,081	1,057	1,016	1,010	1,014	997	1,002	965
Morris	718	684	728	718	697	684	727	664	646	631
Ocean	234	231	231	245	240	213	197	213	232	238
Passaic	2,289	2,277	2,354	2,292	2,234	2,234	2,077	2,101	2,295	2,102
Salem	433	403	390	402	371	416	388	336	360	323
Somerset	497	447	463	467	417	497	406	396	403	391
Sussex	259	252	268	251	268	279	242	242	236	236
Union	1,547	1,535	1,648	1,632	1,611	1,440	1,439	1,409	1,456	1,370
Warren	426	458	443	440	373	443	375	380	384	371
Total	27,807	27,667	28,310	28,009	27,054	26,720	25,494	25,212	25,450	24,660

TABLE 20—Continued
AGES OF PUPILS ENROLLED IN DAY SCHOOLS.

	NUMBER OF PUPILS BETWEEN
Atlantic	16 17 18 19 20 21 22 23 24 25
Bergen	16 17 18 19 20 21 22 23 24 25
Burlington	16 17 18 19 20 21 22 23 24 25
Camden	16 17 18 19 20 21 22 23 24 25
Cape May	16 17 18 19 20 21 22 23 24 25
Cumberland	16 17 18 19 20 21 22 23 24 25
Essex	16 17 18 19 20 21 22 23 24 25
Gloucester	16 17 18 19 20 21 22 23 24 25
Hudson	16 17 18 19 20 21 22 23 24 25
Hunterdon	16 17 18 19 20 21 22 23 24 25
Mercer	16 17 18 19 20 21 22 23 24 25
Middlesex	16 17 18 19 20 21 22 23 24 25
Monmouth	16 17 18 19 20 21 22 23 24 25
Morris	16 17 18 19 20 21 22 23 24 25
Ocean	16 17 18 19 20 21 22 23 24 25
Passaic	16 17 18 19 20 21 22 23 24 25
Salem	16 17 18 19 20 21 22 23 24 25
Somerset	16 17 18 19 20 21 22 23 24 25
Sussex	16 17 18 19 20 21 22 23 24 25
Union	16 17 18 19 20 21 22 23 24 25
Warren	16 17 18 19 20 21 22 23 24 25
Total	16 17 18 19 20 21 22 23 24 25

TABLE 20—Continued
AGES OF PUPILS ENROLLED IN DAY SCHOOLS.

COUNTIES.	NUMBER OF PUPILS BETWEEN								TOTAL.		GRAND TOTAL.
	Years of Age—Boys.				Years of Age—Girls.				Four to Twenty Years (and over)—Boys.	Four to Twenty Years (and over)—Girls.	
	Seventeen and Eighteen	Eighteen and Nineteen	Nineteen and Twenty	Twenty Years of Age (and over)—Boys.	Seventeen and Eighteen	Eighteen and Nineteen	Nineteen and Twenty	Twenty Years of Age (and over)—Girls.	Four to Twenty Years (and over)—Boys.	Four to Twenty Years (and over)—Girls.	
Atlantic	141	122	57	66	42	29	1	1	8,097	8,023	16,120
Bergen	229	254	87	78	21	26	6	6	22,361	22,033	44,394
Burlington	46	115	28	41	15	11	4	4	7,116	7,098	14,214
Camden	112	178	49	74	19	37	13	13	16,001	15,945	31,946
Cape May	52	48	9	24	4	6	1	1	2,384	2,490	4,874
Cumberland	89	142	40	39	10	13	4	4	6,220	6,278	12,498
Essex	661	755	311	317	122	85	79	79	59,225	58,223	117,448
Gloucester	42	75	24	31	8	11	...	...	5,010	4,885	9,895
Hudson	388	401	157	170	46	64	22	22	50,032	48,852	98,884
Hunterdon	31	63	12	27	1	2	...	...	3,094	3,308	6,402
Mercer	76	129	23	36	11	16	...	...	12,462	12,575	25,037
Middlesex	88	117	38	40	10	11	...	...	14,216	13,855	28,071
Monmouth	208	232	74	126	36	40	14	14	11,277	11,280	22,557
Morris	104	161	39	53	8	11	2	2	7,567	7,593	15,160
Ocean	46	67	24	17	8	3	...	...	2,440	2,464	4,904
Passaic	176	177	72	70	27	34	30	30	22,509	22,701	45,210
Salem	50	59	28	22	2	7	1	1	4,056	3,899	7,955
Somerset	44	63	27	35	12	7	1	1	4,694	4,621	9,315
Sussex	37	55	13	19	3	11	...	...	2,679	2,781	5,410
Union	214	264	68	107	21	53	12	12	16,295	15,967	32,262
Warren	52	80	24	30	10	13	...	...	4,054	4,195	8,249
Total	2,884	3,557	1,202	1,421	435	490	133	192	282,789	279,036	561,825

TABLE 21
REGULAR DAY SCHOOL ATTENDANCE.

TABLE 21—Continued
REGULAR DAY SCHOOL ATTENDANCE.

COUNTIES.	Times Tardy.	The Sum of Number of Teaching Sessions as Reported in All Registers.	Average Number of Cases of Tardiness Per Session.	Per Cent. of Attendance.	Average Daily Attendance.	Number of Pupils Not Absent or Tardy During Year.	
Atlantic	48,883	149,054	.32795	.86208	11,403		239
Bergen	70,084	414,188	.16921	.89790	34,301		1,519
Burlington	29,508	119,485	.24696	.81670	9,396		138
Camden	40,669	281,594	.15546	.81150	21,835		396
Cape May	10,373	47,868	.21670	.86174	3,342		69
Cumberland	16,951	112,084	.15123	.87332	9,473		408
Essex	136,944	1,006,226	.13609	.89424	90,639		4,092
Gloucester	19,451	87,216	.22302	.83099	6,513		185
Hudson	96,005	862,903	.11126	.90530	78,097		2,936
Hunterdon	12,785	65,262	.19690	.82048	4,261		143
Mercer	36,363	205,538	.17692	.84250	18,152		390
Middlesex	36,812	227,332	.16193	.87930	21,526		692
Monmouth	34,693	213,698	.16234	.85968	15,764		457
Morris	13,558	141,516	.09580	.88306	11,324		519
Ocean	9,980	49,921	.19951	.84871	3,415		80
Passaic	45,434	297,335	.15280	.92315	37,061		2,099
Salem	15,923	67,521	.23582	.84538	5,387		162
Somerset	25,549	84,876	.30101	.85475	6,693		119
Sussex	8,383	61,946	.18532	.84516	3,688		160
Union	46,337	276,664	.16809	.89589	25,218		1,196
Warren	9,211	81,304	.11329	.88199	6,282		291
Total	763,876	4,832,531	.15806	.88263	423,750		16,290

TABLE 21—Continued
REGULAR DAY SCHOOL ATTENDANCE.

COUNTIES.	Number of Sessions Truant.	Total Number of Days Transported.	Number of Pupils Trans- ported Within the Dis- tricts for Whom the Cost of Transportation is Paid.	Number of Pupils Trans- ported from Without the District for Whom the Cost of Transportation is Paid.	Total Number Transported.	Pupils Enrolled Who Have Attended Public Schools in Other Districts in the State During the Present School Year.	Number of Cases of Suspend- tion or Expulsion During the School Year.
Atlantic	632	75,362½	470	327	797	376	59
Bergen	1,467	214,795	545	1,156	1,701	1,717	166
Burlington	1,526	207,201½	1,919	633	2,552	1,772	67
Camden	5,066	70,573½	374	406	779	1,147	177
Cape May	135	47,767	220	198	418	162	27
Cumberland	550½	129,569	745	204	949	474	109
Essex	21,065½	99,163	784	100	884	2,705	261
Gloucester	68	52,514½	152	232	384	596	82
Hudson	12,950	31,728	257	122	379	2,290	41
Hunterdon	53	58,699½	45	381	426	590	31
Mercer	2,626	162,036½	907	263	1,260	724	71
Middlesex	4,323	135,145	799	164	963	928	144
Monmouth	636½	199,460	930	843	1,773	1,423	77
Morris	603	146,471	675	435	1,110	1,097	78
Ocean	96	30,020	395	247	642	266	32
Passaic	2,620	35,436½	292	369	661	1,526	46
Salem	812	93,485	321	430	751	415	27
Somerset	97	64,450½	274	75	349	345	26
Sussex	66	75,639	192	365	557	512	23
Union	1,992½	56,954	192	296	488	1,073	78
Warren	783½	79,615½	189	392	581	438	68
Total	53,177½	2,116,069½	10,677	7,672	18,349	19,574	1,639

TABLE 22
PUPILS FOR WHOM TUITION IS PAID AND RECEIVED.

TABLE 23
EVENING SCHOOLS.

REGULAR EVENING SCHOOLS—NOT INCLUDING FOREIGN-BORN, MANUAL TRAINING OR VOCATIONAL.

COUNTIES.	Number of Evenings the Schools were Maintained, Including Legal Holidays and Institute Days.	Between 12-14 Years.	Number of Male Pupils Between 14 and 20 Years of Age.	Number of Male Pupils Over 20 Years of Age.	Total Number of Male Pupils.	Between 12-14 Years.	Number of Female Pupils Between 14 and 20 Years of Age.	Number of Female Pupils Over 20 Years of Age.	Total Number of Female Pupils.	Between 12-14 Years.	Total Number of Pupils Between 14 and 20 Years of Age.	Total Number of Pupils Over 20 Years of Age.
Atlantic	61	.....	.....	113	314	.....	132	197	329	.....	.....	.....
Bergen	66	.....	201	5	18	.....	7	.....	7	.....	333	310
Burlington	72	.....	13	104	416	.....	104	65	169	.....	416	169
Camden	64	.....	312	63	83	.....	2	1	3	.....	17	69
Cape May	73	.....	15	28	91	.....	24	10	34	.....	87	38
Cumberland	78	742	5,433	2,530	8,803	492	3,901	2,472	6,865	1,234	9,387	5,052
Essex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gloucester	70	.....	2,451	2,441	4,892	.....	1,940	1,081	3,021	.....	4,391	3,522
Hudson .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hunterdon	66	.....	.....	.....	1,269	.....	495	294	789	.....	1,424	694
Mercer	66	.....	929	340	389	.....	85	88	173	.....	230	232
Middlesex	69	.....	145	244	244	.....	86	54	140	.....	166	213
Monmouth	64	.....	80	164	207	.....	75	123	198	.....	181	224
Morris .....	.....	.....	106	101	.....	.....	.....	.....	.....	.....	.....	.....
Ocean .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Passaic	66	.....	1,147	984	2,131	.....	821	879	1,700	.....	1,968	1,863
Salem .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset	66	.....	1	21	22	.....	.....	.....	.....	.....	1	21
Sussex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Union	72	.....	546	245	791	.....	354	131	485	.....	900	376
Warren .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	63	742	11,495	7,433	19,675	492	8,026	5,395	13,913	1,234	19,521	12,833

TABLE 23—Continued
EVENING SCHOOLS.

COUNTIES.	Total Number of Pupils Enrolled in Evening Schools.	Number of Men Teachers in Evening Schools.	Number of Women Teachers in Evening Schools.	Total Number of Teachers Employed in Evening Schools.	Total Amount Expended for Men Teachers in Evening Schools.	Total Amount Expended for Women Teachers in Evening Schools.	Total Amount Paid Teachers in Evening Schools.	Average Salary Per Night Paid to Men Teachers.	Average Salary Per Night Paid to Women Teachers.	Amount Expended for Salaries of Janitors.
Atlantic	643	7	15	22	\$1,137 50	\$2,061 00	\$3,218 50	\$2 66	\$2 27	.....
Bergen	26	1	1	2	80 00	80 00	160 00	1 25	1 25	.....
Burlington	535	17	4	21	2,976 50	704 00	3,680 50	2 43	2 44	.....
Camden	86	2	1	3	160 00	80 00	240 00	1 25	1 25	.....
Cape May	125	1	4	5	200 00	560 00	760 00	2 73	1 92	.....
Cumberland	15,673	192	181	373	47,923 75	35,989 00	83,912 75	3 20	2 54	\$3,551 00
Essex	7,913	106	123	229	22,154 50	17,744 00	39,898 50	2 98	2 06	\$3,097 50
Gloucester .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hudson .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hunterdon .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mercer	2,053	25	39	64	4,323 00	5,989 50	10,312 50	2 62	2 33	863 25
Middlesex	563	4	14	18	967 50	1,930 16	2,897 66	3 66	2 09	.....
Monmouth	334	3	4	7	416 00	512 00	928 00	2 00	1 85	.....
Morris	405	6	7	13	944 00	1,099 00	2,043 00	2 45	2 45	43 75
Ocean .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Passaic	3,831	26	34	70	6,166 61	5,035 13	11,201 74	2 59	2 24	.....
Salem .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset	22	1	1	2	128 00	128 00	256 00	1 94	1 94	.....
Sussex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Union	1,276	30	21	51	5,679 00	3,281 00	8,960 00	3 63	3 20	1,373 95
Warren .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	33,638	431	449	880	\$93,256 36	\$76,212 79	\$169,469 15	\$3 18	\$2 46	\$3,934 45

TABLE 24
APPORTIONMENT OF RESERVE FUND FOR YEAR BEGINNING JULY 1, 1917.

COUNTIES.	Number of Teachers.	Total Days' Attendance.	Amount Apportioned from \$250,000.00 State School Fund Appropriation.	Amount from \$100,000.00 State School Fund Appropriation.	Amount Allotted from Rail-Road Tax.
Atlantic	565	2,359,602	\$7,185 25	\$4,468 47	\$133,670 78
Bergen	1,243	6,152,762	18,735 85	6,802 50	173,577 32
Burlington	402	1,801,198	5,484 85	1,374 63	41,121 13
Camden	881	4,191,315	12,763 02	3,967 84	118,694 97
Cape May	179	649,886	1,978 98	1,409 46	42,162 95
Cumberland	341	1,809,600	5,510 44	1,045 88	31,286 78
Essex	3,497	18,110,404	55,148 20	24,245 74	725,292 47
Gloucester	285	1,215,992	3,702 83	1,098 98	32,874 99
Hudson	2,661	16,153,720	49,206 11	22,296 71	686,968 83
Hunterdon	203	865,745	2,636 29	830 97	24,558 63
Mercer	754	3,548,622	10,805 95	4,597 09	137,518 37
Middlesex	669	3,634,174	11,066 47	3,390 14	101,413 49
Monmouth	644	3,092,176	9,416 02	4,262 07	127,197 23
Morris	450	2,111,623	6,430 13	2,112 08	63,181 20
Ocean	171	641,743	1,954 18	841 65	25,177 26
Passaic	1,219	7,079,098	21,556 64	7,353 07	220,110 84
Salem	193	875,538	2,666 26	1,054 53	31,546 88
Somerset	273	1,259,203	3,834 41	1,374 72	41,123 79
Sussex	171	716,446	2,181 66	832 46	26,398 02
Union	963	4,660,490	14,191 71	6,581 13	196,870 86
Warren	235	1,164,406	3,545 75	1,025 73	30,685 50
Total	15,989	82,098,793	\$250,000 00	\$100,000 00	\$2,991,422 23

*Subject, prior to distribution, to any further deductions required.

TABLE 24—Continued
APPORTIONMENT FOR RESERVE FUND FOR YEAR BEGINNING JULY 1, 1917.

COUNTIES.	Amount Apportioned 90% State School Tax.	Amount Apportioned Out of 10% Reserve Fund by State Board of Education.	Total Amount Apportioned by State.	Amount Out.	Amount In.	Amount Per Teacher.
Atlantic	\$294,176 18	\$22,686 24	\$462,186 92	\$10,000 00	.....	\$313 02
Bergen	332,000 54	42,444 51	622,560 72	.....	.....	500 86
Burlington	90,497 38	32,055 27	170,533 26	.....	\$23,000 00	424 21
Camden	261,213 14	29,024 24	425,663 21	.....	.....	483 16
Cape May	92,790 18	8,310 02	146,651 69	2,000 00	.....	319 23
Cumberland	68,854 44	31,650 49	138,348 03	.....	24,000 00	405 71
Essex	1,596,188 52	153,354 28	2,554,229 21	24,000 00	.....	730 41
Gloucester	72,349 67	14,083 85	124,065 32	.....	6,000 00	463 17
Hudson	1,467,810 67	138,080 07	2,344,360 39	25,000 00	.....	331 00
Hunterdon	54,047 42	18,006 27	100,068 57	.....	12,000 00	492 94
Mercer	302,643 76	33,627 09	439,192 26	.....	.....	643 79
Middlesex	223,185 88	24,798 43	363,854 41	.....	.....	543 87
Monmouth	279,929 50	29,103 28	449,898 10	2,000 00	.....	698 59
Morris	139,046 13	15,449 57	226,219 11	.....	.....	503 71
Ocean	55,403 89	6,156 54	89,533 52	.....	.....	523 62
Passaic	484,409 27	53,823 25	787,253 07	.....	.....	645 83
Salem	69,426 86	7,714 09	112,408 67	.....	.....	532 42
Somerset	90,503 25	10,065 92	146,892 08	.....	.....	523 23
Sussex	53,095 49	6,455 05	94,012 68	.....	.....	543 73
Union	433,263 83	42,140 43	693,048 01	6,000 00	.....	715 95
Warren	67,531 18	12,503 46	115,291 67	.....	5,000 00	490 60
Total	\$6,583,377 18	\$731,496 35	\$10,656,235 81	\$69,000 00	\$69,000 00	.....

TABLE 23
APPORTIONMENT OF SCHOOL MONEYS FOR YEAR BEGINNING JULY 1, 1917.

COUNTIES.	No. of Teachers.	Total Daily Attendance.	Amount Apportioned from State School Fund Appropriation.	Amount Apportioned from \$100,000.00 State Fund Apportionment.	Amount Allocated from Railroad Tax.	Amount Apportioned 66% State School Tax.	Amount Apportioned Out of 10% Reserve Fund by the State Board of Education.	Total Amount Apportioned by State.
Atlantic	565	2,308,002	\$7,185 25	\$4,408 47	\$123,670 72	\$294,178 18	\$32,890 24	\$482,126 32
Bergen	1,224	5,152,763	12,725 85	5,802 50	173,677 23	352,000 54	42,444 51	522,520 72
Burlington	408	1,801,198	5,484 85	1,374 63	41,121 13	90,497 38	23,065 27	170,532 26
Camden	881	4,191,815	12,763 03	3,967 84	118,694 97	261,318 14	28,094 24	428,083 21
Cape May	179	649,338	1,978 98	1,409 48	42,162 95	92,790 18	8,210 02	146,861 59
Cumberland	341	1,809,600	5,610 44	1,645 25	21,286 78	68,354 44	21,650 49	138,345 78
Essex	3,497	12,110,404	35,143 20	24,345 74	725,292 47	1,596,188 53	153,354 25	2,154,339 21
Gloucester	265	2,215,892	6,702 83	1,098 95	23,874 99	77,349 67	14,088 35	134,065 23
Hudson	2,851	16,168,720	49,306 11	22,295 71	666,953 63	1,467,810 67	138,090 07	2,344,369 29
Hunterdon	203	885,745	2,638 29	820 97	24,553 63	64,047 42	18,005 27	100,005 67
Mercer	754	3,548,623	10,905 86	4,597 09	137,618 87	302,643 78	23,637 09	459,192 26
Middlesex	689	3,634,174	11,096 47	3,390 14	101,412 49	223,185 88	24,792 43	363,364 41
Monmouth	644	2,082,176	9,416 02	4,262 07	127,197 23	279,929 50	29,108 28	448,363 10
Morris	450	2,111,623	6,430 18	2,112 08	62,181 20	139,048 13	15,448 57	226,819 11
Ocean	171	641,748	1,954 18	841 65	25,177 26	55,408 29	6,156 54	89,533 63
Passaic	1,219	7,079,098	21,558 64	7,858 07	230,110 84	464,408 27	63,828 26	737,353 07
Salem	193	576,533	2,686 26	1,054 53	31,545 88	69,428 86	7,714 08	112,403 67
Somerset	278	1,258,203	3,834 41	1,974 72	41,122 79	90,008 25	10,055 92	146,393 08
Sussex	171	716,446	2,151 66	832 46	25,268 03	53,085 49	6,455 05	84,012 63
Union	968	4,660,490	14,191 71	6,581 18	196,870 86	482,363 33	43,140 43	682,043 61
Warren	238	1,104,406	3,545 75	1,025 78	20,685 50	47,531 13	12,503 48	115,261 67
Total	15,988	52,098,794	\$250,000 00	\$100,000 00	\$2,991,423 23	\$6,533,877 18	\$731,438 26	\$10,865,385 21

*Subject, prior to distribution, to any further deductions required.

SECTION B

ATTENDANCE BY COUNTIES* AND DISTRICTS

FOR YEAR ENDING JUNE 30, 1918

TOTAL ATTENDANCE FOR STATE

COUNTIES	Total Attendance	Loss	Gain
Atlantic	2,095,122	217,960	.....
Bergen	6,524,186	.....	90,436
Burlington	1,699,310	152,264	.....
Camden	4,088,602	245,229	.....
Cape May	590,104	24,841	.....
Cumberland	1,734,308	74,952	.....
Essex	18,068,939	235,156	.....
Gloucester	1,190,928	46,090	.....
Hudson	15,569,802	345,293	.....
Hunterdon	791,330	42,414	.....
Mercer	3,559,578	172,169	.....
Middlesex	4,123,527	.....	141,779
Monmouth	2,880,584	195,311	.....
Morris	2,131,303	32,293	.....
Ocean	590,733	55,786	.....
Passaic	7,250,999	.....	66,625
Salem	964,919	.....	29,762
Somerset	1,281,077	42,779	.....
Sussex	692,578	24,455	.....
Union	4,916,482	4,980	.....
Warren	1,168,181	49,200	.....
Total	81,912,592	1,961,172	328,602

ATLANTIC COUNTY

TOWNSHIPS	Total Attendance	Loss	Gain
Absecon	22,500½	2,022	.....
Atlantic City	1,186,983	153,629	.....
*Brigantine .....	.....	.....	.....
Buena Vista	140,588	10,198½
Egg Harbor City	69,384	6,857
Egg Harbor Township	35,050	2,604

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ATLANTIC COUNTY—Continued

TOWNSHIPS	Total Attendance	Loss	Gain
Folsom	7,418	12½	
Galloway	38,337½	7,227½	
Hamilton	64,951	8,656½	
Hammonton	207,702½	21,589	
Linwood	11,015	506	
*Longport			
Margate City	4,317½	807½	
Mullica Township	18,949	927½	
Northfield	18,408	2,660	
Pleasantville	191,817		5,644
Port Republic	7,989	1,206½	
Somers Point	13,304½	1,154½	
Ventnor	40,437	1,030	
Weymouth	15,970½	2,516	
Total	2,095,122	223,604	5,644

*No attendance.

BERGEN COUNTY

Allendale	27,783		2,225
Alpine	8,796	278½	
Bergenfield	122,421½		6,748
Bogota	93,038½		7,858
Carlstadt	140,269½	11,335	
Cliffside Park	218,606		141½
Closter	60,620½	933½	
Cresskill	26,960½	2,362	
Delford	30,616	3,598½	
Demarest	15,872½	1,820½	
Dumont	106,555½		1,496½
East Paterson	64,457½	2,342	
East Rutherford	202,303½		12,008½
Edgewater	99,835	4,497½	
Emerson	30,644	1,081	
Englewood	356,063	23,514½	
Englewood Cliffs	7,514		397
Fairview	186,868		3,751½
Fort Lee	155,035	7,477½	
Franklin	32,309	1,482	
Garfield	663,666		41,178½
Glen Rock	54,042	1,114	
Harrington Park	15,378		756
*Harrington Township			
Hasbrouck Heights	112,218½		7,279½
Haworth	16,606	79½	
Hillsdale	43,403		776
Hohokus	16,501½	2,451	
Hohokus Township	55,775		4,141½
Leonia	118,766		1,076
Little Ferry	96,222	6,993	
Lodi	325,715½		40,261

BERGEN COUNTY—Continued

TOWNSHIPS	Total Attendance	Loss	Gain
Lodi Township	26,705	.....	1,338½
Lyndhurst	314,004	.....	15,512½
Maywood	45,044	.....	1,079
Midland Township	37,202	604½	.....
Midland Park	70,712½	5,950½	.....
Moonachie	34,225	3,533	.....
Montvale	17,896	608	.....
New Barbadoes	581,707½	.....	26,184½
North Arlington	41,817½	.....	1,669
Northvale	22,181½	510½	.....
Norwood	25,462½	.....	195
Oakland	17,217½	1,326	.....
Old Tappan	6,767½	470½	.....
Orvil Township	34,203½	.....	1,817½
Overpeck	253,200	.....	10,787
Palisades Park	83,390	.....	1,251½
Palisades Township	49,654½	.....	425½
Park Ridge	67,618	9,760½	.....
Ramsey	72,278	2,537½	.....
Ridgefield	43,213	.....	3,926
Ridgewood	269,395½	.....	4,559½
Riverside	28,267½	585	.....
Rivervale Township	10,463	2,365	.....
Rutherford	268,732½	.....	18,453½
Saddle River Borough	8,446½	138½	.....
Saddle River Township	62,779½	4,215	.....
Teaneck	120,114½	2,828	.....
Tenafly	69,211	3,710	.....
*Teterboro .....	.....	.....	.....
*Union Township .....	.....	.....	.....
Upper Saddle River	3,833½	.....	468
Wallington	170,944½	7,055½	.....
Washington	3,097½	.....	130
Westwood	85,340	5,222½	.....
Woodcliff Lakes	13,629	958	.....
Wood Ridge	60,570	3,004½	.....
Total	6,524,186	127,455½	217,891½

*No attendance.

BURLINGTON COUNTY

Bass River	14,592	1,476½	.....
Beverly City	55,239½	361	.....
Beverly Township	56,417	8,693½	.....
Bordentown City	89,845½	9,178½	.....
*Bordentown Township .....	.....	.....	.....
Burlington City	195,012	13,918	.....
Burlington Township	29,965	.....	688½
Chester	194,740½	12½	.....
Chesterfield	27,030	4,270½	.....
Cinnaminson	39,156	.....	1,215½
Delran	30,971½	.....	1,846

BURLINGTON COUNTY—Continued

TOWNSHIPS	Total Attendance	Loss	Gain
Easthampton	7,827	2,855	.....
Evesham	29,662½	3,048½	.....
Fieldsboro	15,495½	.....	1,361
Florence	139,830½	5,507½	.....
Lumberton	26,751½	7,237½	.....
Mansfield	30,789½	897½	.....
Medford	39,708	7,383	.....
Mount Laurel	36,579½	2,998½	.....
New Hanover	14,907½	9,069	.....
Northampton	168,688	14,027½	.....
North Hanover	9,360	50½	.....
Palmyra	126,930	11,763½	.....
Pemberton Borough	43,023	2,930	.....
Pemberton Township	16,537½	9,289½	.....
Riverside	117,981½	14,122½	.....
Riverton Borough	45,325½	1,468½	.....
Shamong	8,414	658½	.....
Southampton	21,797	13,728½	.....
Springfield	21,659	2,633	.....
Tabernacle	6,165½	4,132½	.....
Washington	9,387½	757½	.....
Westhampton	5,499½	1,901	.....
Willingboro	13,554½	.....	1,330
Woodland	11,367	4,335	.....
Total	1,699,310	158,705	6,441

*No attendance.

CAMDEN COUNTY

Audubon	94,076	126	.....
Barrington	31,584½	3,877	.....
Berlin	47,319½	1,443	.....
Camden City	2,427,325	171,027½	.....
Centre	63,581	.....	1,309
Chesilhurst	5,021	817	.....
Clementon	76,644½	.....	486½
Collingswood	248,679	.....	7,424
Delaware	38,677	.....	314
Gloucester City	216,487	29,430	.....
Gloucester Township	61,798	.....	176
Haddon Township	49,168½	.....	269½
Haddonfield	163,183	3,705½	.....
Haddon Heights	89,346	1,865	.....
Laurel Springs	22,998	3,177	.....
Magnolia	32,738½	5,574½	.....
Merchantville	59,433	455½	.....
Oaklyn	24,233½	.....	3,202
Pensauken	157,686	11,575	.....
Voorhees	27,082	4,779	.....
Waterford	42,896½	9,138	.....
Winslow	76,059	10,653½	.....
Woodlynne	32,585½	766½	.....
Total	4,088,602	258,410	13,181

CAPE MAY COUNTY

TOWNSHIPS	Total Attendance	Loss	Gain
Avalon	5,724	.....	234
Cape May City	75,336	.....	7,188
Cape May Point	4,343	865	.....
Dennis	39,778½	4,636	.....
Lower Township	19,500	4,493	.....
Middle Township	84,117	6,125½	.....
North Wildwood	25,489	.....	284½
Ocean City	73,377½	6,202	.....
Sea Isle City	17,680	.....	4,290½
Stone Harbor	6,267½	2,007	.....
*South Cape May .....	.....	.....	.....
Upper Township	35,205½	.....	377
West Cape May	29,336	534½	.....
Wildwood City	97,960½	10,484½	.....
*Wildwood Crest .....	.....	.....	.....
Woodbine	75,989½	1,867½	.....
Total	590,104	37,215	12,374

*No attendance.

CUMBERLAND COUNTY

Bridgeton	433,499	16,766½	.....
Commercial	62,918	2,876	.....
Deerfield	78,521	6,952	.....
Downe	31,293½	2,737	.....
Fairfield	33,092½	6,401½	.....
Greenwich	24,693	4,916	.....
Hopewell	58,083	2,884	.....
Landis	477,537	28,041½	.....
Lawrence	45,214½	.....	3,394
Maurice River	45,955½	2,745½	.....
Millville	427,294	3,097½	.....
Stow Creek Township	16,207	928½	.....
Total	1,734,308	78,346	3,394

ESSEX COUNTY

Belleville	525,219	.....	25,508½
Bloomfield	592,623½	5,700	.....
Caldwell Borough	130,402½	316	.....
Caldwell	16,430½	898	.....
Cedar Grove	30,938	3,973	.....
East Orange	1,252,575	8,163½	.....
Essex Fells	9,699½	239½	.....
Glen Ridge	122,144	6,683	.....
Irvington	684,785½	22,548½	.....
Livingston	27,578½	461	.....
Milburn	110,110½	2,455½	.....
Montclair	764,412	.....	25,643
Newark	11,755,500	230,338½	.....
North Caldwell	6,564	.....	1,137½

ESSEX COUNTY—*Continued*

TOWNSHIPS	Total Attendance	Loss	Gain
Nutley	336,112	.....	7,607½
Orange	876,172½	17,574½	.....
Roseland	18,801	646½	.....
South Orange	310,254½	.....	2,237½
Verona	76,183½	.....	5,136
West Orange	422,433	2,428½	.....
Total	18,068,939	302,426	67,270

GLOUCESTER COUNTY

Clayton	54,653½	1,236½	.....
Deptford	28,902½	2,772½	.....
East Greenwich Township..	32,000	.....	30
Elk Township	11,942	1,242	.....
Franklin	80,462	9,128	.....
Glassboro	119,881½	7,167	.....
Greenwich	28,161½	.....	487½
Harrison	39,012½	4,505½	.....
Logan	37,618½	2,220½	.....
Mantua	46,111	1,129	.....
Monroe	82,430	13,662½	.....
National Park	16,467	.....	1,619
Paulsboro	120,400½	.....	5,759
Pitman	66,947½	792	.....
South Harrison	11,856½	1,469	.....
Swedesboro	72,238½	6,204	.....
Washington	23,386½	5,114	.....
Wenonah	19,716½	1,256½	.....
West Deptford	32,000	1,108	.....
Westville	70,703	.....	7,682
Woodbury	185,913	3,006½	.....
Woodbury Heights	10,034	.....	346
Total	1,190,928	62,013½	15,923½

HUDSON COUNTY

Bayonne	2,148,628	.....	3,892½
East Newark	69,292	.....	5,830
Guttenberg	187,462½	939	.....
Harrison	285,268	17,680½	.....
Hoboken	1,667,264½	71,761½	.....
Jersey City	6,785,412½	247,274½	.....
Kearny	683,876	7,231½	.....
North Bergen	725,651	.....	22,523½
Secaucus	113,073½	998½	.....
Town of Union	674,142	46,547½	.....
Weehawken	290,742½	13,843	.....
West Hoboken	1,097,733½	27,917	.....
West New York	841,256	56,654
Total	15,569,802	434,193	88,900

COMMISSIONER OF EDUCATION

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HUNTERDON COUNTY

TOWNSHIPS	Total Attendance.	Loss	Gain
Alexandria	12,905	128½
Bethlehem	7,234	4,419	.....
Bloomsbury	21,952	884½	.....
Clinton, Town of	31,532½	.....	33
Clinton Township	31,540½	3,333	.....
Delaware	28,447½	3,354	.....
East Amwell	19,044½	.....	3,256½
Flemington	111,720	279½	.....
Franklin	17,763	997½	.....
Frenchtown Borough	23,157½	1,583	.....
Hampton Borough	38,966½	.....	2,983½
High Bridge Borough	72,710½	6,908½	.....
Holland	20,755	2,392½	.....
Kingwood	17,675½	3,602	.....
Lambertville City	120,679	4,724	.....
Lebanon	40,564½	.....	2,380
Milford	16,792	2,792	.....
Raritan	33,855	1,802½	.....
Readington	47,379½	8,398	.....
Stockton Borough	17,281	.....	2,268½
Tewksbury	17,448½	1,152	.....
Union	17,642	4,767½	.....
Union Graded	13,340	1,862½	.....
West Amwell	10,944½	212	.....
Total	791,330	53,464	11,050

MERCER COUNTY

East Windsor	100,782	11,953	.....
Ewing	68,159½	.....	3,382
Hamilton	366,042	2,114½	.....
Hopewell	151,794	12,250	.....
Lawrence	93,428	.....	1,986
Princeton Borough	127,903½	16,749	.....
Princeton Township	24,246½	.....	6,422½
Trenton	2,572,765½	138,887	.....
Washington	21,466	8,458	.....
West Windsor	32,991	.....	6,452
Total	3,559,578	190,411½	18,242½

MIDDLESEX COUNTY

Cranbury	40,612	.....	1,005
Dunellen	86,656	4,706	.....
East Brunswick	61,209½	1,199½	.....
Helmetta	26,691½	.....	994½
Highland Park	93,921	.....	9,442½
Jamesburg	94,304	4,262	.....
Madison	42,690	.....	6,428
Metuchen	105,471	.....	1,112

SCHOOL REPORT.

MIDDLESEX COUNTY—Continued

TOWNSHIPS	Total Attendance	Loss	Gain
Middlesex	55,189½	.....	1,470½
Milltown	69,697½	.....	7,416
Monroe	33,020	4,869½	.....
New Brunswick	753,699½	.....	51,500½
North Brunswick	21,109	.....	382
Perth Amboy	1,274,370½	.....	49,864½
Piscataway	113,822½	.....	4,734
Raritan	127,489	.....	1,196½
Roosevelt	279,142	.....	19,877
Sayreville	73,764½	2,498½	.....
South Amboy	125,617½	2,849½	.....
South Brunswick	76,349½	7,733½	.....
South River	177,956	.....	7,255½
Spotswood	25,784½	1,326	.....
Woodbridge	364,960½	.....	8,545
Total	4,123,527	29,444½	171,223½

MONMOUTH COUNTY

*Allenhurst .....	.....	.....	.....
Asbury Park	365,965	34,676½	.....
Atlantic	20,908	2,296	.....
Atlantic Highlands	57,563	2,631	.....
Avon	16,420	2,404½	.....
Belmar	51,422½	1,017	.....
Bradley Beach	48,858	8,768½	.....
*Deal .....	.....	.....	.....
Eatontown	48,390	4,562	.....
Fairhaven	29,816	3,043	.....
Farmingdale	18,992	.....	876½
Freehold, Town	159,140	6,990½	.....
Freehold Township	25,477½	7,989	.....
Highland	43,638½	3,393	.....
Holmdel	28,831½	4,662	.....
Howell	47,960½	9,728½	.....
Keyport	128,834	753½	.....
Keansburg	36,523	.....	83½
Long Branch	458,116½	35,936	.....
Manalapan	50,417½	818	.....
Manasquan	68,261	5,427½	.....
Marlboro	37,173½	3,950½	.....
Matawan	95,727	.....	6,264
Middletown	153,953½	13,768½	.....
Millstone	35,707	4,809	.....
Monmouth Beach	10,039	1,226½	.....
Neptune City	16,336½	512½	.....
Neptune Township	189,155	17,823½	.....
Ocean	31,889	441½	.....
Raritan	33,300	.....	412
Red Bank	259,734	.....	877
Rumson	50,018	5,624	.....
Sea Bright	26,288	3,069½	.....

MONMOUTH COUNTY—*Continued*

TOWNSHIPS	Total Attendance	Loss	Gain
Shrewsbury	43,782	3,194	.....
Spring Lake	21,849½	.....	446
Upper Freehold	59,826	1,918½	.....
Wall	89,528	13,060½	.....
West Long Branch	20,743½	.....	225
Total	2,880,584	204,495	9,184

*No attendance.

MORRIS COUNTY

Boonton Town	133,088	1,384	.....
Boonton Township	12,378	6	.....
Butler	90,524	7,787	.....
Chatham Borough	70,736	.....	7,525
Chatham Township	21,911	2,397	.....
Chester	28,101½	3,595½	.....
Denville	24,559½	.....	1,053½
Dover Town	321,393½	.....	578½
Florham Park Borough	12,438½	210½	.....
Hanover	123,064	.....	496
Jefferson	29,791½	11,505½	.....
Madison	127,756½	551½	.....
Mendham Borough	32,545½	1,097½	.....
Mendham	16,820½	378	.....
Montville	55,405½	4,413	.....
Morris	58,013	794½	.....
Morristown	278,861	6,239	.....
Mt. Arlington Borough	7,329½	466½	.....
Mt. Oliver	27,065½	1,197½	.....
Netcong	75,514	1,759	.....
Passaic	52,935½	2,414½	.....
Pequannock	49,788½	1,582	.....
Randolph	61,871½	3,316½	.....
Rockaway Borough	99,248	1,455	.....
Rockaway Township	99,514	3,043	.....
Roxbury	99,830	.....	6,104
Washington	47,786½	.....	4,829
Wharton	73,032½	.....	2,714
Total	2,131,303	55,593	23,300

OCEAN COUNTY

Barneget City	619½	1,313½	.....
Bay Head	6,290	1,454	.....
Beach Haven	8,153	2,122	.....
*Beachwood .....	.....	.....	.....
Berkeley	8,075	2,854½	.....
Brick	43,662	6,366	.....
Dover	79,906½	7,658½	.....
Eagleswood	10,290	2,879½	.....
Harvey Cedars	1,265	.....	249

SCHOOL REPORT.

OCEAN COUNTY—Continued

TOWNSHIPS	Attendance Total	Loss	Gain
Island Heights	8,240½	1,537	.....
Jackson	27,801½	4,883	.....
Lacey	12,005½	1,126½	.....
Lakewood	174,839½	6,472½	.....
Lavalette	4,467½	.....	851½
Little Egg Harbor	10,811	2,703	.....
Long Beach	137	825	.....
Manchester	19,145	2,612½	.....
*Mantoloking .....	.....	.....	.....
Ocean	6,957½	694½	.....
Plumstead	24,946	815	.....
Point Pleasant	50,495	225½	.....
Sea Side Heights	2,233½	2,460	.....
Sea Side Park	5,538½	368½	.....
Stafford	19,892½	1,943½	.....
Surf City	1,448	267	.....
Tuckerton	38,550½	4,391	.....
Union	24,963	914	.....
Total	590,733	56,886½	1,100½

*No attendance.

PASSAIC COUNTY

Clifton City	830,314	.....	64,583
Haledon	96,388	.....	1,349
Hawthorne	135,542	.....	2,710½
Little Falls	103,320	.....	5,585½
North Haledon	25,538½	293½	.....
Passaic	1,853,317	.....	65,619
Paterson	3,636,151	109,458	.....
Pompton	199,529	.....	29,468
Pompton Lakes	50,493	.....	3,858½
Prospect Park	108,250	1,919	.....
Totowa	54,074	.....	4,886½
Wayne	61,082½	2,721½	.....
West Paterson	53,716	.....	1,491½
West Milford	43,284	.....	1,465½
Total	7,250,999	114,392	181,017

SALEM COUNTY

Alloway	39,687	2,119	.....
Elmer	35,730½	2,648	.....
Elsinboro	6,886½	307½	.....
Lower Alloway Creek	27,267½	3,667½	.....
Lower Penn's Neck	36,658	.....	2,093
Mannington	28,340½	2,113	.....
Oldman's	39,361	272	.....
Penn's Grove	152,873½	.....	18,468
Pilesgrove	109,318½	5,124½	.....
Pittsgrove	47,603½	7,157	.....
Quinton	19,732½	.....	394½

SALEM COUNTY—Continued

TOWNSHIPS	Total Attendance	Loss	Gain
Salem	234,969½	11,207½	.....
Upper Penn's Neck	142,257	.....	44,767
Upper Pittsgrove	44,233½	1,344½	.....
Total	964,919	35,960½	65,722½

SOMERSET COUNTY

Bedminster	29,088½	3,687½	.....
Bernards	137,597½	26,610	.....
Bound Brook	229,056½	.....	8,859
Branchburg	24,396	2,980	.....
Bridgewater	153,244½	1,572	.....
East Millstone	10,773	1,044½	.....
Franklin	39,215½	6,081	.....
Hillsborough	85,421½	.....	3,068
Millstone	4,552½	.....	1,053
Montgomery	23,280	677	.....
North Plainfield Borough ..	186,918	14,150½	.....
North Plainfield Township ..	19,087	590	.....
Peapack-Gladstone	42,882	.....	1,177
Rocky Hill	13,867½	598½	.....
Somerville	217,086	.....	996
South Bound Brook	41,169½	.....	1,620½
Warren	23,441½	1,561½	.....
Total	1,281,077	59,552½	16,773½

SUSSEX COUNTY

Andover Borough	17,289	.....	2,083½
Andover Township	5,759	3,049	.....
Branchville	21,348½	.....	1,047½
Byram	5,031½	1,284½	.....
Frankford	16,662½	2,826½	.....
Franklin Borough	93,713½	.....	6,121½
Fredon	5,158	691	.....
Green	10,590	.....	277½
Hampton	12,969	127½	.....
Hardyston	75,240½	.....	4,695½
Hopatcong Borough	4,315	.....	598½
Lafayette	13,188½	2,393½	.....
Montague	8,638½	1,017	.....
Newton	150,710	16,834	.....
Ogdensburg	30,076½	.....	4,303
Sandyston	18,759½	1,382	.....
Sparta	22,787	.....	502½
Stanhope	33,648	1,905	.....
Stillwater	18,793½	1,994½	.....
Sussex Borough	55,753	.....	2,251½
Vernon	32,953	4,630	.....
Wallpack	4,854	682	.....
Wantage	34,340	7,519½	.....
Total	692,578	46,336	21,881

SCHOOL REPORT.

UNION COUNTY

TOWNSHIPS	Attendance Total	Loss	Gain
Clark	15,517	.....	81½
Cranford	171,790	5,120	.....
Elizabeth	1,993,695	8,099½	.....
Garwood	75,549½	.....	3,636
Hillside	124,390	.....	14,794½
Kenilworth	47,815	.....	4,330
Linden	272,992½	.....	8,269
Mountainside	7,680½	.....	510
New Providence Borough...	42,096½	1,001½	.....
New Providence Township.	24,517½	3,074½	.....
Plainfield	705,256	2,697	.....
Rahway	305,697	19,876½	.....
Roselle	172,548	.....	3,256
Roselle Park	185,276½	9,280	.....
*Scotch Plains	71,026½	.....	1,894½
Springfield	52,528½	.....	2,470½
Summit	242,591	5,013½	.....
Union	132,364½	.....	10,698
Westfield	273,150½	757½	.....
Total	4,916,482	54,920	49,940

*Formerly Fanwood.

WARREN COUNTY

Allamuchy	10,727½	1,484	.....
Alpha	59,617½	6,796	.....
Belvidere	61,587	.....	1,990
Blairstown	38,404½	5,348	.....
Franklin	30,738	3,201½	.....
Frelinghuysen	13,880½	4,539	.....
Greenwich	18,696	4,244	.....
Hackettstown	107,026	.....	7,132½
Hardwick	4,446	908½	.....
Harmony	37,139½	.....	2,490½
Hope	14,085½	3,373	.....
Independence	18,736½	2,508	.....
Knowlton	22,682	4,577½	.....
Lopatcong	23,804	.....	123½
Mansfield	19,683½	788½	.....
Oxford	56,029	.....	395½
Pahaquarry	2,932½	1,197	.....
Phillipsburg	438,458	13,470	.....
Pohatcong	38,304	2,137	.....
Washington Borough	111,770½	.....	6,975½
Washington Township	14,628½	9,110½	.....
White	24,804½	4,625	.....
Total	1,168,181	68,307½	19,107½

SECTION C

SUPERINTENDENTS

COUNTY SUPERINTENDENTS

<i>Atlantic</i>	.....HENRY M. CRESSMAN.....	Egg Harbor City (Residence)
<i>Bergen</i>	.....B. C. WOOSTER.....	Hackensack (Court House)
<i>Burlington</i>	.....LOUIS J. KASER.....	Mt. Holly (Kelsie & Killie Bldg.)
<i>Camden</i>	.....CHARLES S. ALBERTSON...	Camden (Court House)
<i>Cape May</i>	.....AARON W. HAND.....	Cape May Court House
<i>Cumberland</i>	...J. J. UNGER.....	Bridgeton (Court House)
<i>Essex</i>	.....OLIVER J. MORELOCK.....	Newark (Essex Bldg., Room 316)
<i>Gloucester</i>	....DANIEL T. STEELMAN.....	Woodbury (Court House)
<i>Hudson</i>	.....AUSTIN H. UPDYKE.....	Jersey City (Court House)
<i>Hunterdon</i>	....JASON S. HOFFMAN.....	Flemington (Bloom Building)
<i>Mercer</i>	.....JOSEPH M. ARNOLD.....	Trenton (Court House)
<i>Middlesex</i>	....H. BREWSTER WILLIS.....	New Brunswick (Co. Office Bldg.)
<i>Monmouth</i>	....CHARLES J. STRAHAN.....	Freehold (Court House)
<i>Morris</i>	.....J. HOWARD HULSART.....	Morristown (Court House)
<i>Ocean</i>	.....CHARLES A. MORRIS.....	Toms River (Hyers Building)
<i>Passaic</i>	.....EDWARD W. GARRISON.....	Paterson (Court House)
<i>Salem</i>	.....H. C. DIXON.....	Salem (Court House)
<i>Somerset</i>	....HENRY C. KREBS.....	Somerville (Court House)
<i>Sussex</i>	.....RALPH DECKER.....	Newton (Court House)
<i>Union</i>	.....A. L. JOHNSON.....	Elizabeth (Court House)
<i>Warren</i>	.....HOWARD E. SHIMER.....	Belvidere (Court House)

CITY SUPERINTENDENTS

<i>Asbury Park</i>	...AMOS E. KRAYBILL	<i>New Brunswick</i>	...IRA T. CHAPMAN
<i>Atlantic City</i>	.....C. B. BOYER	<i>Newark</i>	.....DAVID B. CORSON
<i>Bayonne</i>	.....P. H. SMITH	<i>North Bergen</i>	.....M. F. HUSTED
<i>Bloomfield</i>	.....GEORGE MORRIS	<i>Ocean City</i>	.....JAMES M. STEVENS
<i>Bordentown</i>	.....H. V. HOLLOWAY	<i>Orange</i>	.....W. B. PATRICK
<i>Bridgeton</i>	.....D. C. PORTER	<i>Passaic</i>	.....FRED S. SHEPHERD
<i>Camden</i>	.....JAMES E. BRYAN	<i>Paterson</i>	.....J. R. WILSON
<i>Cape May City</i>	.....E. R. BRUNYATE	<i>Perth Amboy</i>	.....S. E. SHULL
<i>East Orange</i>	.....E. C. BROOME	<i>Phillipsburg</i>	.....H. J. NEAL
<i>Elizabeth</i>	...RICHARD E. CLEMENT	<i>Plainfield</i>	.....HENRY M. MAXSON
<i>Englewood</i>	....ELMER C. SHERMAN	<i>Pleasantville</i>	WILLIAM C. SULLIVAN
<i>Gloucester City</i>	..WILMER F. BURNS	<i>Rahway</i>	.....WILLIAM F. LITTLE
<i>Hoboken</i>	.....A. J. DEMAREST	<i>Salem</i>	.....WALTER B. DAVIS
<i>Irvington</i>	.....R. LEE SAUNDERS	<i>South Amboy</i>	.....OSCAR O. BARR
<i>Jersey City</i>	.....HENRY SNYDER	<i>Summit</i>	.....HARRY SPRAGUE
<i>Kearny</i>	.....HERMAN DRESSSEL	<i>Town of Union</i>	.....N. C. BILLINGS
<i>Long Branch</i>	.....CHRIS. GREGORY	<i>Trenton</i>	.....EBENEZER MACKEY
<i>Millville</i>	...FREDERICK J. SICKLES	<i>West Hoboken</i>	...ARTHUR O. SMITH
<i>Montclair</i>DON C. BLISS		

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PART IV

REPORTS OF

EDUCATIONAL INSTITUTIONS AND

TEACHERS' RETIREMENT FUND

FOR THE YEAR ENDING JUNE 30, 1918

(295)

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STATE NORMAL SCHOOL AT TRENTON

J. J. SAVITZ, *Principal*

I take pleasure in submitting the annual report of the New Jersey State Normal School at Trenton.

THE GENERAL COURSE

The time allotment for the various subjects in the General Course of the Normal Schools of New Jersey, as adopted by the State Board of Education in September, 1917, was immediately put into full effect in the Junior Class. For the seniors the new schedule was used as far as was possible without interfering with the completion of studies already begun. The reduction in the number of hours allotted to certain subjects made possible the introduction of work in industrial arts, in sewing, and in cooking, as well as a much-needed course in experimental education. A course in principles of education was offered in the last term of the senior year, for the purpose of relating and interpreting earlier studies. The change made possible also the introduction of a course in library methods and an extension of the time devoted to music. Moreover, it gave opportunity to emphasize physical education by carrying out the provisions of the Pierson Physical Training Law.

SPECIAL COURSES

The Special Courses offered in the school were reorganized to conform with the requirements of the General Course as to subjects common to both. The work in manual training, domestic science and arts, and in commercial education was so modified as to stress the development of practical judgment and of special skill in the manipulation of materials and tools. The combination courses preparing for both grade and special work were abandoned, so that the time of each student is now devoted exclusively to preparation either for grade work or for teaching special subjects. In addition to the usual work given in such special courses, students in the Commercial Department are to receive practical training in the offices of the Steward and the Principal and are further required to spend at least one summer in a commercial position secured by the principal of the school or the head of the department; students in Domestic Science and Arts will have charge of the school lunch room and must either spend some time in an actual dressmaking establishment or get the equivalent of such practical experience; while each Manual Training student is assigned to assist the school mechanic in practical work for a period of ten weeks. Two additional special courses have been organized, one to prepare teachers for Special Classes of Subnormal Children; the other in connection with the New Jersey State School for the Deaf, to fit students for this particular field of work.

Competent instructors have been engaged to carry on the preparation of special teachers in all the courses offered and in a few years the Trenton Normal School should be able to supply the needs of the State.

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PREPARATION OF RURAL TEACHERS

The fitting of teachers for country schools being one of the crying needs of the day, a rural department has been organized by the appointment of a Faculty Committee on Rural Schools, and voluntary enrollment of a group of students who were brought up on farms or are especially interested in rural life. Twenty-one of our most capable young women are now preparing for this work. At present the special training is given by the head of the Psychology Department and the instructor in Nature Study and School and Home Gardening. The young women of this group are taking courses in Rural Life, and in Rural School Organization, Management and Teaching. Through the co-operation of Mr. Carrol, Farm Demonstrator of Mercer County, Miss Laretta James, Home Economics Agent of Mercer County, and Mr. Arthur M. Hulbert, State Leader of Girls' and Boys' Clubs, it is possible to give the work a practical trend.

RURAL OBSERVATION CENTRE

To enable the students to observe teaching in a typical rural school, the Normal School has established a rural observation centre at Hart's Corner, Hopewell Township. This was made possible through the co-operation of the board of education and the supervising principal of the township, and the superintendent of the county. Miss Caroline McIntire, a member of the June, 1918, graduating class, who took special training in rural work during the summer session of Alfred University, has charge of the Hart's Corner school. Additional centres are to be established in communities readily accessible to the Normal School.

FARM COLONY AT TINTON FALLS

A great impetus was given to our interest in and appreciation of rural life by a group of alumnae and students who volunteered to assist the farmers of Monmouth County in harvesting their crops. Misses Sheppard and Lafetra of the Normal School faculty deserve much credit for devoting the entire summer at their own expense to supervision of this work.

The Board of Education of Shrewsbury Township offered the splendid new school building at Tinton Falls as a home for the volunteers, and the women of the community provided cots, a stove, cooking utensils and dishes. The farmers were appreciative of the work of the young women and the latter learned to recognize the sterling qualities of our rural manhood and womanhood, and thus the lives of both farmers and farmerettes were enriched and broadened through contact and co-operation, while the sum total of the food which will win the war was increased.

FOLLOW-UP AND EXTENSION WORK

To enable our graduates to achieve the best possible results an effort is being made to assist them in adjusting themselves as rapidly as possible to their first teaching positions, and to follow up their work in succeeding

years. By means of visits and correspondence, teachers are encouraged to make the largest use of their training and to develop a proper professional attitude.

The heads of the departments have volunteered to offer extension courses after school hours and on Saturdays to graduates and other teachers who desire to improve themselves. Graduates and teachers are encouraged to visit the Normal School and to correspond with members of the faculty concerning their school problems.

TRAINING SCHOOL

At the opening of the year, a Training School composed of pupils of elementary school age living in Trenton and vicinity was organized in the rooms formerly occupied by the Model School. More than five hundred pupils applied for admission; of these two hundred seventy-five were enrolled. An effort is being made to provide accommodations for an enrollment of four hundred. Each department was put in charge of a competent critic, who has supervision of the training of a group of twenty or twenty-five Normal students. These critic teachers are members of the Normal School faculty and there is hearty co-operation between them and the teachers of special method. Each instructor in special method teaches in the Training School regularly, in order to demonstrate approved methods of teaching. The closest possible relation is therefore established between the work in the Normal and the Training School and, with the increased Training School enrollment so much to be desired, unusual opportunities for observation and practice will be offered to students.

SUPERVISION OF EWING TOWNSHIP SCHOOLS

The Board of Education of Ewing Township has requested the Normal School faculty to supervise the schools of the township during the coming year, and this work has been undertaken with enthusiasm. The general school situation in this township presents problems and opportunities of an unusual nature. The schools have been consolidated into two four-room buildings, one three-room building, and a one-room colored school of eight grades. Two of the buildings are modern and equipped with movable furniture; one has an auditorium; the children are a fairly representative group, and the members of the community as well as the Board of Education, are anxious to maintain a thoroughly modern school system.

This work will bring the faculty and students face to face with not only the usual but also with a number of unusual school problems. The course of study must be adapted to this type of school, a satisfactory program must be arranged, the pupils must be properly cared for physically, transportation routes must be maintained, proper janitor service must be provided, community centres should be organized, and the goodwill of the community toward the schools must have opportunity for practical expression.

PREPARATION FOR STATE PRACTICE

Opportunity for observation of work in three and four-room schools is provided in Ewing Township, and in one-room schools not only there but especially in the rural demonstration centre in Hopewell Township. The Training School and the Junior High School offer practice as well as observation to students taking special courses and those preparing to teach in the upper grades. These advantages should enable the students to undertake their State practice well prepared to profit by its extension from six weeks to ten.

EXTRA-CURRICULAR ACTIVITIES

To develop the spirit of co-operation and to widen experience, students have been encouraged to participate in community activities whenever opportunity offered. A large number of our young women volunteered to take charge of the Story Hour at the State Museum. The classes in biology made collections and arranged exhibits to be loaned by the State Museum to the schools of the State. The class in school garden work tested seed corn for the farmers of Mercer County, and sixty students assisted the Trenton teachers in planting the school gardens of the city and in supervising the later work. The students volunteered to take charge of the Normal campus, which was used as a community playground after school hours by children under twelve years of age. The rural school group assisted in carrying on various activities at a school picnic in Hopewell Township. Early in the year each student was asked to play the part of or, to act as "big sister" to some boy or girl in the Training School. These big sisters were expected to guide the children in their work and play, to co-operate with both parents and teachers, and thereby to assist in bringing about a proper relation between home and school activities. The students also proved helpful in follow-up work after the medical inspector had made his examinations.

WAR WORK

A gratifying patriotic spirit was shown in the generous response of students and teachers to calls for both money and service to alleviate conditions brought on by the War.

The domestic arts department knitted two hundred forty sweaters for the soldiers at Camp Dix. The money for the wool was raised by subscription, cake sales, and a Young Women's Christian Association lawn fete. A large number of helmets and bed socks were knitted by the students for Camp Meade soldiers. The wool for these was furnished by the Trenton Schoolmasters' Club, through Mr. T. D. Sensor, President. Each student of domestic arts completed an entire set of hospital garments.

Sixty-five French peasant costumes, made by the fifth and sixth grades of the Training School for patriotic pageant, were given to the Friends' Reconstruction Society of Trenton, to be sent to France.

The "big sisters," Normal School students assigned to the pupils of the Training School, assisted in making and caring for war gardens at the homes of the children, under the supervision of the nature study department.

Seed corn was tested for the Mercer County farmers, and a large school garden was planted. The Normal seniors, sixty in number, made seed and soil tests before the students in the Trenton city schools. They also assisted the city children in the preparation and planting of city garden plots.

The senior class in domestic science took the Red Cross course in dietetics. The teachers in this department instructed two classes of Trenton women in Red Cross dietetics, one on Friday evenings and, one on Saturday mornings. The department also assisted in preparing the food exhibit at the State House.

The cookery classes gave demonstrations in the canning and drying of vegetables and fruits, and arranged an exhibit of wheat substitutes.

The Normal students, under the direction of the English Department organized a thrift stamp campaign which included every student in the Normal and Training School.

Every student in the Training School was enrolled as a Junior Red Cross member.

The children of the kindergarten department made snippings for hospital pillows.

The Red Cross Standard Dressings course was given in a class organized by a group of the faculty with the intention of opening workrooms in the school when the course was completed.

The faculty, students and literary societies subscribed and contributed approximately \$2,000 to the Student Friendship War Fund. This money was raised through personal sacrifice and saving.

The faculty and employes of the school have subscribed \$37,600 to the various Liberty Loans.

Every male student in the graduating classes of February and June, 1918, is actually engaged in war work.

The following graduates and former students of the school have been reported as in the national service:

<i>Name</i>	<i>Class</i>	<i>Branch of Service</i>
Horace D. Bellis, M. D.	1897	Major Medical Corps, A. E. F.
William H. Caldwell	1918	
Willard S. Danser	1915	
Lester H. Dix	1914	
Russell Estelle	1917	
Raymond Fretz	1910	
George Filipetti	1913	
Joseph Glenn	1918	303 Sanitary Train, A. E. F.
Anna Gosman	1904	Nurse, Dr. Mayo's Hospital Overseas
Frank Haronian	1917	Corporal Medical Corps, Anniston
William B. Hargrove	1916	Aviation
Raymond Heiser	ex-1918	First Lieutenant, 68th U. S. Infantry
Melvin R. Johnson	ex-1918	
Coates L. Johnson	1918	
Mervin W. Johnson	1916	
Mary R. Keating	1914	Yeowoman
Allen Laning	ex-1918	Radio Striker, U. S. N.

SCHOOL REPORT.

Mahlon P. Maley	ex-1918	104th U. S. Engineers, A. E. F.
Carrie Mather	1907	Y. M. C. A. Canteen, Overseas
Wladyslaw Motyl	1917	A. E. F.
E. Raymond O'Neil	1912	
Harry E. Patterson	ex-1918	
Herbert B. Rankin	1913	Second Lieutenant, Signal Corps
Almer J. Snider	1917	Ordnance
Sherman T. Small	1918	S. A. T. C.
Harley E. Smith (Faculty)		Aviation, Ellington Field, Texas
Albert Scheyhing	1918	
Rudolph Vogel	ex-1920	

PHYSICAL EDUCATION

Instead of being limited to five periods per week for one term, the physical training class hours were increased in number and distributed through the four terms of the Normal course, so that each student devoted two periods of every week to this work. In addition each student was required to spend at least one afternoon after school in competitive games, organized and managed by the students themselves. Credit was given for this time in the same manner as for regular classroom work. Many of the students became enthusiasts in playing baseball, end-ball, captain-ball, dodge-ball, etc. The new tennis courts afforded opportunity for a goodly number of devotees of this sport.

Through these after-school athletics, a much larger number of students than usual became genuinely interested in various forms of outdoor sports, which augurs well for physical education when they begin their work as teachers. One aim of the school is to make every student an enthusiast in all forms of outdoor athletics.

CAMPING PARTIES

No phase of outdoor life proved more popular than the week-end camping parties. Each week during the Spring thirty young women, under the guidance and supervision of two members of the faculty, camped at Somerset on the Delaware. A large bungalow, located in a charming spot, was rented from Mr. T. D. Sensor. The girls elected leaders to supervise the camp and to apportion the work so that each girl might gain an all-round experience in camp organization and management. The time was spent in hikes and horse back riding, outdoor athletics and bathing, camp cooking and care and the study of nature. A log book was kept, nature charts were made, visitors were entertained, religious services conducted, and camp entertainments planned.

In addition to the deepening and broadening of soul which result from such an experience, the young women improved their physical health and developed a love for the outdoors which will be reflected in the lives of their pupils.

IMPROVEMENTS IN BUILDINGS AND EQUIPMENT

In order to increase the facilities for teaching and to provide for the comfort and convenience of pupils, a number of improvements in the school

buildings and boarding halls were undertaken which when fully completed will contribute materially to economy and efficiency in instruction and to the general welfare of the students.

The laboratory, the lecture room and the dining room of the Domestic Science Department have been redecorated, and windows have been screened, and the dining room has been fully furnished. The walls of all the halls and of the first floor rooms in the main building have been painted. A new floor has been laid in the auditorium, and walls have been repainted and the frieze restenciled, making practically a new room.

STUDY HALL

The study room on the second floor of the Normal Building has been thoroughly renovated; the walls have been decorated, the wood work painted, the furniture refinished, a new lighting system and an additional radiator installed. This provides the day students with a well-lighted, convenient and comfortable place for study and recreation.

KINDERGARTEN

The walls of the kindergarten room were redecorated, cupboards with individual drawers for each pupil were built, and new blackboards, tables and chairs, and other necessary equipment were provided. The result is a modern kindergarten greatly appreciated by the children.

GYMNASIUMS

Offices with shower baths have been built for the Director of the physical training department and his assistants and a room suitable for medical examinations has been provided, connected with these offices. The necessary apparatus for making accurate examinations has also been installed. A contract has been let for the reconstruction of the students' shower baths and locker rooms. When these improvements are completed, our splendid large gymnasiums will have a modern equipment throughout.

LUNCH ROOM

The lunch room has been reconstructed by replacing the board wainscoting with yellow tile brick, and the wooden ceiling with one of metal; the wooden pillars have given place to iron, additional windows have been put in, a new system of artificial lighting has been installed, and the whole room has been tastefully decorated. Adjoining the lunch room and connected with it is a kitchen provided with modern equipment including a steam table. Instead of being managed as a private enterprise, the plant will be run by the young women in the Domestic Science Department. This will afford opportunity for experience in marketing and in preparing food in quantity for commercial purposes. It will also enable the students to dispose of the products of their regular lessons in domestic science.

BOARDING HALLS

The repairs necessary for the comfort and convenience of the students in the boarding halls have not been overlooked. One hundred rooms have been repapered, six hundred yards of new carpet laid; the corridor walls have been painted, the woodwork in the Centre Hall reception room has been regrained, the dining room walls and woodwork have been painted and the furniture refinished, and a new lighting system installed. New lights have also replaced those formerly used in Centre and North Halls. Fire escapes easily accessible to all the floors of the halls have been built and electric fire alarm sirens have been so placed as to be easily heard throughout the building.

HEATING AND POWER PLANT

The wornout boiler has been replaced by a new one and a patent conveyor is being installed to remove the ashes from the furnaces by steam instead of hand power.

FACULTY

In December, Dr. Levi Seeley, who for nearly a quarter of a century was head of the Department of Pedagogy, retired from active duties to enjoy a well-merited rest. Dr. Seeley was a popular and inspiring teacher, a congenial fellow worker, and a loyal friend of the school. The following resolution offered at a farewell party tendered him by the faculty appropriately expresses their appreciation of his services and their personal esteem:

Whereas, the resignation of Dr. Levi Seeley from the faculty of the State Normal School at Trenton has severed his daily association with his former colleagues, who wish to express their appreciation of the large-hearted, fair-minded instructor, distinguished as an author and pedagogical leader, who places the personality of the teacher and the taught above all methodology and mere technical knowledge; be it therefore

Resolved, That the school has lost an optimistic teacher, whose confidence in and sympathy with the students easily secured their co-operation, hearty loyalty, and personal esteem; and be it

Resolved, That his colleagues have lost an associate whose genial personality, even temper, buoyant spirits and unfailing courtesy will be greatly missed; and be it further.

Resolved, That a copy of these resolutions be printed in the February Signal.

Miss Sarah R. Budd, who taught for a number of years in the Model School and was made critic in the sixth grade when the Training School was organized, retired at the end of the year. Miss Ruby Minor was appointed to succeed Miss Budd. Miss Minor is a graduate of Teachers College, Columbia University, and has taken courses in Indiana Normal School at Winona Lake, and in Chicago University. She has taught all grades in city and rural schools in Indiana, and was for two years an instructor in the State Normal College, Bowling Green, Ohio, and critic teacher in the fourth grade of the Training School. Recently she taught principles of education and English methods in Indiana University.

Mrs. Rose Mead Lowe, assistant in the Commercial Department, resigned to accept a business position.

Miss Adelma Gillette, assistant librarian, took a position in the library of the Princeton Public Schools.

Miss Frances Reimann, assistant in the Biological Department, resigned to accept the principalship of a school at Little Falls.

Miss Isabel W. Clark, associate in the Psychology Department, in charge of the special class for sub-normal children, was appointed to teach a special class in the Trenton Public Schools, and Mrs. Grace Pomeroy Fearon, a graduate of the June, 1918, class, was appointed to fill the vacancy.

LECTURES

A number of lectures were delivered during the year by men who had recently returned from the war front. It was the purpose of these lectures to acquaint the students not only with the details of modern warfare, but also with the causes and aims of this war, and especially with the spirit of the men at the front and our opportunity and obligation to support them. The importance of home industries, especially agriculture, in relation to the war, was also forcibly presented. Besides the war lectures there were a few of a literary nature and a number of musical recitals. The names of the lecturers and their subjects are given in the following list: Captain Leslie Vickers, *Life in the Trenches*; Dr. Arthur Le Roe, *Experiences in the French Ambulance Service*; Dr. Henry Van Dyke, *The War*; Major Kendall Emerson, of the British Royal Army Medical Corps, *A Message From Harvard Base Hospital No. 22*; Mr. Louis J. Penningroth, of the International Committee of the Y. M. C. A., *Work in Prison Camps*; Dean Ralph L. Watts of Pennsylvania State College, *How the Horticulturist Can Help Win the War*; Mrs. Iris Prouty O'Leary, Assistant to the Commissioner of Industrial Education for New Jersey, in the field of vocational education for women, *How Women Can Help Win the War*; Mr. Edward Avis, bird mimic, whistler and violinist, *Birdland*; Mr. George Stone of the American Social Hygiene Association, *The Beginnings of Life*, illustrated by moving pictures; Miss Lillie A. Williams, *Abraham Lincoln*; Peahmesqueet, an Ojibway Indian, *Legends and Songs of the Ojibways*; William Sterling Battis, *life portrayals of the characters of Charles Dickens*; Miss Frances C. Hays, *story recital*; Miss Jeannette M. Wells, *song recital*; and an instrumental recital by Mrs. Mercedes O'Leary Tucker, pianist, Mr. Albert T. Stretch, violinist, and Mr. Walter Hankin, violincellist.

ENTERTAINMENTS

National holidays were appropriately celebrated by exercises in which the students of both the Normal and Training Schools took part. Under the direction of the Festival Committee of the Faculty, the students planned the programs, writing or adapting the speaking and singing parts, designing the costumes, and arranging the dances.

To provide a variety of programs suitable for any school, the plan of giving three major and three minor festivals, plays or pageants during the

year was adopted. Last year major entertainments were given at Thanksgiving and Washington's Birthday, and in connection with the closing exercises of the graduating class.

The Thanksgiving play presented present conditions in the countries at war. The traditional viands of a Thanksgiving dinner table, personified and enacted by children of the Training School, were permitted to go to Europe to help Red Cross nurses to overcome Famine and Sickness. The Spirit of America gave eloquent expression of our national ideals. This play has been published by the Woman's Home Companion, and a goodly sum realized thereby for patriotic purposes.

On Washington's Birthday episodes illustrating Henry Van Dyke's poem, "Who Follow the Flag," presented in turn Washington as the creator of our flag, and various bands of followers whom it has summoned from slavery in our own land and from adverse conditions in oversea countries, to help to make a true democracy on our shores.

The Spring festival of the Seniors, "Our Quest," was a memorable vision of dancing flowers, leaves, birds and butterflies, doing their service of beauty in the court of the king and queen of fairyland, and discovering in a land beyond mortal ken some of the secrets of the spirit by which humanity lives.

LITERARY SOCIETIES

The nine literary societies in the school were divided into two groups, the Normal Dramatic Club, Philomathean, Arguromuthos, Theta Phi and Ionian Societies comprising the first group; and the Normal Pedagogical Club, Gamma Sigma, Round Table and Shakespeare Societies, the second. Each society met every other society in its own group in a series of preliminary literary contests. The Normal Dramatic and Normal Pedagogical Clubs having the highest per centage of victories in their respective groups met in a final contest Friday evening, March 8, 1918, for the championship of the school. The contest consisted of debate, oration, recitation and short story. The Normal Dramatic Club was declared the winner by the judges. The school also competed in the annual contest with the Freshman team of Swarthmore College.

The societies also gave a number of informal evening entertainments in the gymnasium, and the following more formal dramatic presentations in the auditorium: Arguromuthos, *The Forest Princess*; Shakespeare, *The Deacon's Hat*, and *The Piper Pays*; Round Table, *Beauty and the Beast*; Normal Pedagogical, *The Teeth of the Gift Horse*, and *Pot of Broth*; Philomathean, *A Patriotic Medley*.

HONOR ASSOCIATION

To properly celebrate the organization of the Honor Association on its first anniversary, a special meeting of the students was held on June 8, at which Mr. Richard Cleveland of Princeton University and Miss Mary R. M. Griffiths of Barnard College delivered interesting and inspiring addresses. Much interest in this important phase of our school life was aroused, and the students voluntarily pledged themselves anew to support the principles of the Association.

ENROLLMENT

NORMAL SCHOOL

	Men	Women	Totals
First quarter	13	596	609
Second quarter	12	580	592
Third quarter	13	539	552
Fourth quarter	10	525	535
Number of students enrolled during the year....	15	612	627
Number of new students who enrolled during the year:			
High School graduates.....			288
College graduates			1
Returned after a period of absence.....			4
Total			293

TRAINING SCHOOL

	Boys	Girls	Totals
Kindergarten	14	17	31
First grade	14	15	29
Second grade	16	12	28
Third grade	20	28	48
Fourth grade	25	29	54
Fifth grade	14	18	32
Sixth grade	12	14	26
Special class	5	4	9
Number of students enrolled during the year..	120	137	257

GRADUATES

	Men	Women	Totals
The number graduated from the Normal School during the year	8	284	292

The following table shows the distribution of students of this Normal School, and of its graduates employed in New Jersey:

COUNTIES	Number in Normal 1917-18	Number of Graduates Employed
Atlantic	17	104
Bergen	17	273
Burlington	59	128
Camden	37	185
Cape May	17	36

Cumberland	66	97
Essex	1	263
Gloucester	20	48
Hudson	32	241
Hunterdon	24	51
Mercer	151	282
Middlesex	31	285
Monmouth	45	206
Morris	15	97
Ocean	20	37
Passaic	4	95
Salem	18	44
Somerset	10	79
Sussex	12	37
Union	11	111
Warren	20	38

COMMENCEMENTS

The awarding of diplomas to the February class of the Normal School took place in the auditorium on the morning of Friday, February 1. Hon. M. A. Rice, President of the State Board of Education, presented the diplomas.

The commencement exercises of the June class were held Saturday morning, June 22, at ten-thirty o'clock in the auditorium. The speaker was J. Duncan Spaeth, Ph. D., of Princeton University. The honor members of the class, who took part in the program, were Adelma Elizabeth Gillette and Thera Twitchell. Hon. J. Stewart Craven, a member of the Normal School Committee, presented the diplomas.

In lieu of the usual class day program in the auditorium the graduating class presented on the campus "Our Quest," a spring festival pageant written by Miss Twitchell.

ALUMNI

The general Alumni Association held its thirtieth annual meeting Saturday, June 22. A business meeting was conducted in the auditorium, followed by luncheon in the gymnasium. Here a number of interesting talks were given by members of the faculty and alumni following a word of greeting from the President, Miss Alice F. Wyckoff, and two vocal solos by Miss Marietta Davies of the 1918 class. Among those who spoke were Miss Sarah J. McNary, who told of the work of students during the year in their efforts to earn money for war relief, and especially to buy thrift stamps; Miss Elizabeth Eckhardt, of the 1918 class, who gave a most interesting account of her work as community leader at Ringwood; Mrs. Frank Jones, a Model School alumnus, who told of her efforts as a housekeeper along conservation lines; Miss Elizabeth P. Sheppard, on the initial work of the Normal School Land Army Unit at Tinton Falls, New Jersey; Mr. James S. Messler, Model, on the part of education in the world war; and Principal Savitz, who told of some of the things which the school is doing and hopes to do.

At the business meeting the following officers were elected for the ensuing year:

President, Paul R. Radcliffe, Normal, Superintendent of Schools, Red Bank.

Model Vice-President, James S. Messler, 835 Berkely Avenue, Trenton.

Normal Vice-President, Helen T. Service.

Corresponding Secretary, Edna V. Hughes, Normal, State Normal School, Trenton.

Recording Secretary, Mrs. Albert T. Stretch, Normal and Model, 207 Academy street, Trenton.

Treasurer, Mollie Pierrepont, Normal, Mercerville, N. J.

Owing to conditions produced by the war, the North Jersey Alumni Association did not hold a meeting, the officers elected at the twenty-first annual meeting continuing in office. They are:

President, Reeves D. Batten, Supervising Principal of Schools, Lyndhurst.

Vice-President, Mrs. C. O. Blaisdell, 1091 Bushwick Avenue, Brooklyn, New York.

Secretary and Treasurer, Harold H. Phillips, Bloomfield.

THE JAMES M. GREEN LECTURE FUND

The retirement of Dr. James M. Green from the principalship of the State Normal and Model Schools at Trenton June 30, 1917, gave the alumni an opportunity to express in a tangible and permanent form their appreciation of his long and devoted service to their Alma Mater.

At the June, 1917, meeting of the Alumni Association The James M. Green Lecture Fund committee proposed to collect by voluntary contributions \$5,000, to be known as "The James M. Green Lecture Fund," the income to be devoted to lectures given before the Normal students at Trenton each year. These lectures will be known as the "James M. Green Lectures."

Although the fund has not nearly reached the amount fixed upon as a minimum the Alumni Association at the June meeting in 1918 instructed the committee to begin the lectures during the present year. Owing to the difficulty of reaching members of the Alumni, many of whom are in war service, it was decided to keep the fund open for the contributions of the many alumni who would wish to honor Dr. Green, to render immediate service to their Alma Mater, and because all funds are invested in Liberty Bonds at the same time to avail themselves of another opportunity for patriotic service.

STATE NORMAL SCHOOL AT MONTCLAIR

CHARLES S. CHAPIN, *Principal*

The number of students registered at the opening of the fall term 1917 was 600; 45 more entered at the beginning of the spring term 1918, making a total of 645 different persons enrolled during the school year ending June 30, 1918. In view of the numerous prophecies of shrinkage in attendance at higher educational institutions, it is interesting to note that for the present year the enrollment is but 63 less than that for the previous year and but 58 less than that for the corresponding fall term.

The number of graduates in January, 1918, was 81; in June, 1918, 177, the largest class by far to be graduated in the history of the school. The total number of graduates for the year is therefore 258.

The contribution of the Montclair State Normal School to war activities of the nation has been prompt and generous. Twenty-one graduates and under-graduates have enlisted in the United States Army or Navy and several more are subject to early call. Miss Emma K. Pierce, head of the department of gymnastics, is doing Red Cross work in France. Mr. Will S. Monroe, head of the department of psychology, has been engaged in research work for the United States Government under the auspices of the American Geographical Society since December, 1917. He has, however, continued most of his work at the Normal School.

The selection of Mr. Monroe for this important work is an honor for the Montclair State Normal School. He has been for many years a student of geography and a traveler in the European countries most affected by the war. He is the author of a book on Bohemia, another on Bulgaria, and another on Turkey and the Turks, and is intimately acquainted with the geographic, political, economic and ethnographic problems of the Balkan States.

A Junior Red Cross has been organized with one hundred per cent membership. Seven units have been formed under the leadership of Miss Fallie F. McKinley, faculty chairman of the school activities of the Junior Red Cross. The chairmen of these committees are: Clerical work: faculty, Miss Eula McKinney; student, Miss Victory Johnson. Ways and means: faculty, Miss Ethel Fennell; student, Miss Alice Scott. Sewing: faculty, Mrs. Jessie B. Bodley; student, Miss Elizabeth Trent. Knitting: faculty, Miss Mabel E. Smith; student, Miss Helen Wildman. Surgical dressings: faculty, Miss Mary F. Barrett; student, Miss Jeannette Bond. Amusement for hospitals: faculty, Miss Selma Anderson; student, Miss Winifred Barrett. Messenger service: faculty, Miss Marion Weston; student, Miss Katherine Macdonald. Every student belongs to one or more of these various units. All these units made a remarkable record.

SURGICAL DRESSINGS UNIT

The surgical dressings unit was allowed the use of a basement recitation room and of part of a supply closet opening from it. The room was admirably suited to the purpose as it had a cement floor, running hot and cold water,

and a blackboard, and was lighted by four large windows near the ceiling.

Most of the equipment, such as tables, stools, rulers, scissors, etc., was borrowed from the school; the rest—oilcloth covers for the tables, paper towels and soap, was paid for by the school chapter. The problem of supplying aprons and kerchiefs was solved by the purchase of a number of aprons and squares of cheesecloth, which remained the property of the school chapter and were loaned at each appointment. The kerchiefs were washed after each wearing and the aprons were laundered several times during the term by volunteers.

The chapter paid for one hundred and five dollars worth of the gauze used; the rest came from the Senior Red Cross Chapter of Montclair. This chapter had a number of candidates for instructors' certificates whom it sent to the school unit to complete their practice teaching, thus aiding materially the teachers and students in charge of the room. There have also been volunteer helpers from Bloomfield and Montclair.

The room was open from 2 to 5 o'clock on four days of the week from March 20 to June 27. In all, 134 different students and 11 members of the faculty worked in the room and completed in the time mentioned 20,312 dressings. Most of the dressings were sponges and compresses.

The students proved to be very rapid and skillful workers. No adverse criticisms were ever made by the inspectors of the Senior Chapter; on the contrary, their work has been highly commended.

KNITTING UNIT

1,050 hanks of wool were charged against this unit, which returned in knitted articles a value of 1,130 hanks. The finished articles included 720 pairs of socks, 44 pairs of wristlets, 24 sweaters, beside mufflers, ear tabs and French caps.

SEWING UNIT

This unit completed and presented to the local Junior Red Cross 1,672 garments, although, owing to unavoidable conditions, it did not begin its work until April 8. A detail of these articles shows the wide activities of the unit:

Refugee garments—228

- 91 petticoats
- 19 infants night gowns
- 42 pairs of bootees
- 50 chemise
- 19 shawls
- 3 boys' shirts
- 2 patch work quilts (baby)
- 2 dresses

Hospital supplies—80

- 69 hospital bed shirts
- 11 pairs bed socks

Surgical supplies—1,270

248 slings

10 sculletus bandages

1,012 front line parcels

Treasure bags—53

Pi Sigma donation—41 comfort kits, made and filled—cost \$60

Total 1,672

Ambulance blankets and books for convalescent soldiers were also made, while a hundred comfort bags were filled and sent to our soldiers abroad at Christmas.

In order to finance the Junior Red Cross, students raised money by selling photographs and silhouettes, by contributing 3,652 feet of pennies, by collecting and selling tin foil, by making sacrifice boxes, by dances, plays, candy sales, flower sales, cake sales, to the sum of \$267.36. Donations from the Phi Sigma society and from the Alpha society, the proceeds of the Senior Class dance, and contributions from miscellaneous sources yielded \$253.38 more, making a total of \$520.74. With this sum all the above activities of the Junior Red Cross were supported and the year closed with a balance of \$110.55 in the treasury.

A War Savings Society with Miss Florence E. Stryker, head of the history department, as president and the principal as secretary and treasurer, was organized and about two-thirds of the students signed pledges to save a given amount each week to be invested in thrift and war savings stamps. This work was not begun until three months before the close of school, but the number of stamps purchased by students amounted to \$482.38.

This Normal School was made a center for West Essex for testing seed corn, and Dr. C. H. Robison, head of the department of nature study, has, with the assistance of students in his classes, made a considerable number of tests. A typical war garden on the school grounds has been made by the students of the nature study department illustrating the proper distances and successions of thirty crops of a home war garden and the best methods of planting and cultivating them. Each student was required to plan a war garden for her own home.

In response to a stirring appeal from the Women's Land Army of America for vacation work on farms of New Jersey, many of our students have enlisted as farmerettes during the summer.

Speakers of prominence, some of them fresh from the war front, have addressed the students, arousing much enthusiasm. The history classes have featured current events, keeping students informed of the progress of the war both from the military and diplomatic standpoints. Mr. A. M. Hulbert, of the staff of State Food Administrators, has lectured before the school on the necessity of food conservation. Mr. H. M. Anderson, Major G. B. Maxwell and Lieutenant Franklin Smith of the Montclair Battalion have assisted in the campaign of our War Savings Association. Rev. Thomas Travis, pastor of the Watchung Congregational Church, deeply stirred and impressed the school by his vivid accounts and experiences in and behind the Ypres-Armentieres sector.

In spite of the incessant war work of our students, it has not been found necessary to abbreviate or lessen in any way the regular work of the school. Plans are afoot to enlarge our war work for the coming year and keep the Montclair State Normal School an influential factor in this community in helping to win the war.

Once more I call attention to the fact that the Russ Memorial Dormitory is quite inadequate to meet the needs of applicants for admission to this school. At the close of the present school year the dormitory is filled for next September and 96 names remain upon the waiting list. Our attendance next September will be materially lessened by the fact that 34 applicants for admission to the dormitory have withdrawn their applications for admission to the school because they cannot be accommodated at Russ Hall. During the war it is unwise and unpatriotic to agitate for an increase in our dormitory facilities, but the time must come when the State will be called upon to consider whether the most economical administration of the Montclair State Normal School will not require the erection of additional dormitory facilities. Russ Hall and any dormitories to be erected in the future will be self-supporting. A new dormitory will add a large number of new students without increasing materially the expenses of maintaining the Normal School. It is an axiom in school administration that an increase in the number of students in an institution reduces the per capita expense for maintenance. Overhead charges are not much larger for one thousand students than for six hundred. Repairs, improvements, insurance and upkeep are entirely independent of enrollment. To meet the great demand for teachers in the grade schools of the State, it is not only necessary to erect a new State Normal School at Glassboro, but also to use the existing plants to their utmost capacity. The Montclair Normal School building can accommodate under our present practice teaching system a school of nearly one thousand; but the school will never be much larger than at present unless increased boarding facilities can be provided.

This school was compelled to close for several days in January, 1918, because it was impossible to secure coal. All the time lost was made up by keeping the school in session on Saturdays and holidays. It is a pleasure to report that such a situation is made impossible for the coming winter by the arrangements which have already been made to secure an ample supply of coal. Pin-hole grates and blowers have been installed, making possible the burning of buckwheat coal and, as the government embargo on buckwheat coal does not apply to State institutions, we have secured a contract for enough buckwheat coal to take care of our needs for the entire school year.

An interesting feature of the year was the observance on June 8, 1918, of the completion of ten years of the history of the Montclair State Normal School and the assemblage on the campus and in the building on that day of nearly six hundred of the alumni. Addresses were made by Assistant Commissioner Enright, Principal Savitz, Principal Willis, Mrs. Frank W. Arnold, and the principal; and numerous letters of congratulations were read. Luncheon was served in the Normal School lunch room. After the business meeting in the assembly hall, the alumni witnessed a presentation by under-

graduates of the Normal School of a pageant entitled Ulysses and Nausicaa. This was prepared and rehearsed jointly by Mrs. Humphrey of the English department, Miss McKinley of the music department, Miss Weston, head of the physical training department, and Miss Baker, head of the manual training department. It was staged on the terrace at the east end of the building with the green trees and blue sky as a background, and was perhaps the most beautiful, as it was the most elaborate, spectacle that has ever been presented on the campus of the Montclair State Normal School.

It may be noted that during the ten years of its existence the Montclair State Normal School has graduated 1,464 teachers, of whom more than 1,200 are teaching in New Jersey.

In order to carry out the provisions of the Pierson Act, which will require in the near future many specially trained teachers of physical education, this school has organized and will open next September a department for the training of teachers and supervisors of physical training. The course of study and requirements for admission are as follows:

The first two years of the course are to be identical with the first two years of the present courses of study.

Third year of course in physical training is open only to holders of State normal certificates. Candidates must pass a physical examination conducted by the school physician, must be able to sing, must have a good sense of rhythm, and must give promise of success in this department.

SENIOR B TERM

6 weeks—Athletic coaching.				
14 weeks—Theory of gymnastic teaching.....	3	hours	per	week
Normal diagnosis	2	"	"	"
Anatomy of bones and muscles	2	"	"	"
Physiology and hygiene	3	"	"	"
First aid and home nursing	1	"	"	"
Community civics	3	"	"	"
Blackboard drawing	1	"	"	"
Folk dancing and singing games	3	"	"	"
Games	2	"	"	"
Calisthenics and light apparatus work.....	2	"	"	"
	22	"	"	"

SENIOR A TERM

Theory of gymnastic teaching.....	3	hours	per	week
Corrective and preventive gymnastics	3	"	"	"
Anatomy of head and viscera	2	"	"	"
Teaching of hygiene, including community and personal hygiene and safety	3	"	"	"
State and national civics	3	"	"	"
Blackboard drawing	1	"	"	"

Aesthetic dancing	3	"	"	"
Games	2	"	"	"
Calisthenics and light apparatus work	2	"	"	"
	<hr/>			
	22	"	"	"

Last ten weeks—Practice teaching in public schools.

The diploma of this course of study entitles the holder to a State certificate to teach or to supervise physical training in any public school in the State of New Jersey.

Every candidate must pass a rigid physical examination. Extremes of height or weight are undesirable. Candidates must have shown evidence of good scholarship in the Normal School, must have a good sense of rhythm, must have a pleasing personality and executive ability.

Every candidate is admitted on probation and will be dropped from the course whenever it becomes evident that she is not adapted to this work. Students are admitted in September only.

It was with the greatest regret that the resignation of Dr. Cornelia E. MacMullan, head of the department of English since the opening of the school in 1908, was announced to take effect February 1, 1918. Miss MacMullan was an extraordinary teacher not only on account of her wide reading and her fine literary taste, but also because of her power to inspire pupils to love good literature and to appreciate and to use good English. Miss MacMullan gave herself to her work without stint and was never too busy with her heavy school program to take up any kind of outside work which would add to the entertainment of students. Halloween, Thanksgiving, Christmas, spring pageants and patriotic holidays were opportunities which Miss MacMullan always coveted for adding to the interest and value of school life. She married Mr. Frank W. Arnold of Montclair.

Miss MacMullan was succeeded by Mrs. Louise G. Humphrey who proved herself a most worthy successor but whose services were secured at the close of the school year as associate principal of Dana Hall, Wellesley, Mass., at a salary considerably in advance of that paid to any woman in the State Normal Schools of New Jersey.

Miss Grace E. Scatchard, associate teacher in the department of physical training, resigned to marry.

In connection with the resignation of Mrs. Humphrey, it is germane to record the fact that this is one of several resignations of our very best women teachers which would have been prevented if the New Jersey State Normal Schools had been able to pay the same salaries which were offered them by institutions in other States. Though the salaries of women in our Normal Schools are good, they are not equal to those paid in some other systems and institutions. New York State has just passed a statute fixing the maximum salary of the heads of departments in State Normal Schools at three thousand dollars, irrespective of the sex of the teacher. After the war it is a matter for careful consideration whether the rich State of New Jersey will permit its Normal Schools to remain training schools for teachers to adorn the faculties of normal schools and private schools in other states.

SCHOOL REPORT.

The financial statement for the eight months ending June 30, 1918, is appended:

APPROPRIATIONS—YEAR ENDING JUNE 30, 1918

Maintenance, Account 46A	\$72,825.00
Repairs and Improvements, Account 46B	10,000.00
Supervision of Practice Teaching, Account 46C	15,000.00
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Total	\$97,825.00

DISBURSEMENTS FOR EIGHT MONTHS ENDING JUNE 30, 1918

Maintenance, Account 46A	\$55,320.79
Repairs and Improvements, Account 46B.....	9,086.66
Practice Teaching, Account 46C	12,106.10
	<hr/>
	\$76,513.55
	<hr/>
	\$21,311.45

REQUISITIONS NOT INCLUDED IN DISBURSEMENTS

Maintenance, Account 46A	\$855.27
Repairs, Improvements, Account 46B	864.57
Practice Teaching, Account 46C	15.00
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	\$1,734.84
	<hr/>
	\$19,576.61

LAPSES FROM APPROPRIATIONS

Maintenance, Account 46A	\$16,648.94
Repairs, Improvements and Insurance, Account 46B....	48.77
Practice Teaching, Account 46C	2,878.90
	<hr/>
	\$19,576.61

STATE NORMAL SCHOOL AT NEWARK

W. SPADER WILLIS, *Principal*

The State Normal School at Newark opened September 4, 1917, with the largest enrollment in its history. Nine hundred and ninety-four students, representing sixteen counties, were enrolled; the entrance class numbered four hundred, and it is gratifying to state that applications from all counties were admitted. Trolley and railroad facilities enable a great majority of the student body to commute. Only fifty students are boarding in the city. These students have found excellent accommodations at the Young Women's Christian Association and at private homes recommended by the principal.

BENEFITS OF THE LENGTHENED SCHOOL DAY

For two years the sessions of the school have commenced at 8:50 A. M. and closed at 3:50 P. M., with a forty-five minute luncheon period. This permits of eight possible teaching periods a day of forty-five minutes each, and affords extra time for library preparation, opportunity to make up conditioned subjects, conferences with principal and teachers, and above all enables students who commute from long distances to commence their work at 9:35 in the morning instead of 8:50. This plan has solved a difficult problem of administration and meets with the general approval of parents and students.

ATTENDANCE

The attendance for the year 97.7, indicated two significant facts, namely, the general good health of the student body and the interest manifested in their work. Health conditions have been carefully looked after by two physicians, teachers of hygiene and the physical training instructors. The building itself has been an important factor, as it is well lighted, well ventilated, and has been kept in perfect sanitary condition. A number of cases have been found by the physicians where students needed the removal of adenoids and tonsils, proper eyeglasses, and ear and throat treatment. It is unfortunate that some cases of curvature of the spine have been discovered, which have been neglected for a long while. The State cannot make a better investment than by securing competent physicians for the purpose of examining all students who desire to become teachers. Good health is a fundamental essential for successful teaching.

FACULTY

Five years ago when the school opened the faculty numbered twenty-six; it now numbers fifty-eight. The spirit of co-operation by members of the faculty is apparent. The policy of the school is to create good working conditions and to establish mutual understanding and helpfulness between faculty and students. This has been accomplished and is a source of gratification.

Definite periods outside of regular class recitations are used for the purpose of conferences between instructors and students. This has proven an important factor in bringing about a fine spirit of friendship and helpfulness. It is absolutely imperative that in schools of this character teachers should know more about students than can be gained in regular classroom recitations. Teachers and students are traveling the same road. It is unfortunate if they should become so widely separated as to lose that personal touch which expresses itself in so many valuable ways.

UNIFORM TIME PERIODS

One of the important measures accomplished during the past year was the amount of time that should be spent on each subject to be taught in the Normal Schools. This was brought about through the initiative of the Hon. M. A. Rice, President of the State Board of Education, who held conferences with the three Normal School principals, and as a result the following schedule was agreed upon and adopted by the State Board of Education:

160	Periods of	Physical Training
60	"	" Hygiene
240	"	" English
120	"	" Music
120	"	" Arithmetic
120	"	" History and Civics
120	"	" Geography
140	"	" Psychology
30	"	" History of Education
80	"	" Manual Training
40	"	" Penmanship
160	"	" Science
100	"	" Drawing
80	"	" Principles of Teaching

Sewing, Cooking and Library Work will be special subjects.

240 periods of English includes Spelling, Story-Telling, Reading Methods, Literature and Public Speaking.

The number of periods for the Jr. B. Class will be 27; Jr. A., 27; Sr. B., 26; Sr. A., 26.

PHYSICAL TRAINING

The recently enacted Pierson Law has created renewed interest in physical education, as it has placed the stamp of approval upon the value of physical training in the public schools. Great interest is manifested in this work and the gymnasium is occupied from 8:50 in the morning until 5 o'clock in the afternoon. The aim of the instructors is not to train a winning team, but to promote the general good health of the student body in an intelligent, sympathetic and happy manner. The State Monograph on physical training

is closely followed, and students are given careful preparation in the subject matter and methods of presenting the same. Besides the regular grade work, special emphasis is placed upon classroom and outdoor games, folk dances, supervision of recesses and athletic meets, all of which promote vigor, alertness, and cheerfulness. The outdoor playgrounds are constantly used for these purposes and special classes are formed for students requiring corrective exercises. It seems unfortunate that these classes are so large as it indicates previous neglect. No physical training department is meeting its true function unless it gives individual attention to students based upon thorough medical examination. The close connection existing between the two school physicians and the teachers of hygiene and physical training makes it possible to point out and demonstrate such topics as lighting, ventilation, temperature, furniture, classroom equipment and general sanitary conditions directly connected with the health and progress of children. The course of study is designed to meet the needs of children in a scientific manner.

PRACTICE DEPARTMENT

The growth of this department has been a rapid one. Ninety students are now given their first ten weeks of practice in the Webster Training School, and two hundred and fifteen students are given their second ten weeks of practice in the various school systems of the State. Five supervisors of practice follow up the work of the practice students. Frequent conferences are held with critic teachers and students, and special help is given to those requiring it. Monthly reports are made to the principal of the Normal School by the supervisors of practice regarding the number of visits they have made and general information regarding the success or failure of the students. The critic teachers employed by the school meet once a semester for a round-table conference, and other helpful meetings are scheduled from time to time, such as conferences with county supervisors, helping teachers, and supervising principals. The supervisors of practice also follow up the work of the graduates, and the reports received from both supervisors and school authorities indicate that there are few failures among the one thousand graduates who are teaching in various parts of the State.

LIBRARY EQUIPMENT

The library was established three years ago and has on its shelves eleven thousand carefully selected reference books covering all departments of the school; five thousand textbooks for general use, and an unusual collection of illustrated books for children which is doubtless one of the finest collections in the State, and a varied list of periodicals, government reports and educational journals. The library room is spacious, well lighted, well ventilated and equipped with modern furniture. It seats one hundred and fifty students at one time, and is in charge of two trained librarians and one helper. Regular library periods are arranged so that all students have an opportunity to prepare their lessons in the library under the supervision of trained instructors. Students are given a course in library methods which enables them

to use the library to good advantage, to know the cost and care of books and how to train children to handle books in an economical manner. They are also given carefully selected lists of good reading material for the various grades with special reference to the one-room rural school. A feature of the work is to acquaint students with the cost of books, pamphlets, educational publications and other school material. From two to three hundred reference books are given out daily to the students in connection with hundreds of other books used in the preparation of lessons. All books received at the school are taken to the library where they are stamped, numbered and catalogued. A complete index system is used. Last year only six books were lost. This speaks well for librarians, teachers and students.

HOW TO DRESS WELL AND EAT WISELY

The courses of study in the sewing and cooking departments are very practical. The aim of the sewing course is to acquaint students with the value of textile materials, how to judge them and how to cut, make and care for suitable clothing and household furnishings at reasonable cost. The June graduating class demonstrated their ability to make attractive, up-to-date clothing at a minimum expense. A feature emphasized in the sewing department is keeping an accurate account of the cost of a student's own clothing. We find that the average cost of clothing for a student in this school is \$150 per year; the minimum cost being about \$50. Students are required to appear in class dressed as they would appear before children in their own classrooms. They are judged as to harmony and suitability of costume, and general care of person. Exhibits loaned by stores and by students are used to illustrate the quality of goods that can be purchased for the entire year's clothing at an expense of \$110, which is the largest amount a beginning teacher can afford to spend on the average salary of \$550 for the first year.

The aim of the cooking department is to teach food values and to plan well balanced, nourishing diet. Students are trained to buy, prepare and serve meals at a cost at the present time of twenty cents a piece for a group of twelve people. This work has been made very practical and helpful and enables our students to use good judgment in preparing school lunches and refreshments for various social occasions.

PATRIOTIC ENDEAVOR

The principal cannot refrain from expressing his appreciation of the services rendered by the faculty and students in response to their country's call. As soon as war was declared by our Government the school was organized for actual service. Thousands of articles were made and turned over to the various Red Cross units, the activities of the students being continued throughout the summer. All members of the faculty and student body are paying members of the Red Cross, and two hundred and fifty students belong to the Girl's Patriotic League. \$77.65 was subscribed for the Armenian Relief Fund. \$10,500 worth of the first Liberty Loan Bonds were taken; \$64,500 were subscribed for the second Liberty Loan, and \$76,000 for the

third Liberty Loan, making a total of \$151,000. Seven of our young men who have joined the army have been given comfort kits and blankets by the faculty and students. Miss Beulah Hurley, head of our Domestic Science Department, who is now in France doing reconstruction work, was also given an outfit by the faculty. This remarkable showing is the result of the loyalty, devotion and earnestness of the student body who carried out a well-defined program with heroic purpose and boundless enthusiasm. This spirit of service has developed a kinship of thought and feeling which will bear noble fruitage in years to come.

THE FUTURE OF THE SCHOOL

The Board of Education of the city of Newark has served notice upon the Board (State) of Education that this building will be taken back February 1, 1921, on account of the failure of the State Legislature to purchase the building.

For five years the State has had the free use of this building, which is splendidly equipped and is pronounced by experts to be a model Normal School building in every respect.

It is also located in the greatest high school center of the State, which accounts for its remarkable growth. It opened its doors September 1, 1913, with a faculty of twenty-six, and an enrollment of four hundred and forty-two students. It now has at the end of its fifth year a faculty of fifty-eight and an enrollment of eight hundred and eighty-two students.

The pupils from fifty high schools live within commuting distance of this building. It is almost a tragedy that the institution, the largest Normal School in the State, should be disbanded when it is so much needed. The last entrance class will be February, 1919; after that it will be impossible to take more students as they cannot be guaranteed two years of training unless some action is taken by the coming Legislature towards purchasing the building.

The members of the State Board of Education have made every effort to have this building purchased as they fully realize what a calamity it would be to lose this splendidly equipped building which is so centrally located and graduates over four hundred teachers a year.

NEW JERSEY SCHOOL FOR THE DEAF

ALVIN E. POPE, *Superintendent*

The following resolution was passed by the State Board of Education:

"MOVED:—That this Board approve the gradual removal of the School for the Deaf from its present site to a suburban site and that this Board further approve the necessary requests to the Legislature for appropriations to carry such removal into effect.

"The motion was duly seconded and carried."

In conformity with this resolution, the Committee permitted the return of \$40,000.00 to the State which was voted for the construction of a girls' dormitory on the present site. They also returned to the State \$6,000.00 which had been appropriated for enlarging the boiler room. Chiefly through the efforts of Mr. Robert Lynn Cox and Mr. John E. Gill, an appropriation of \$25,000.00 was voted by the State Legislature for the purchase of a new site.

"Upon motion of Mr. Murray, seconded by Mr. Jeffery, the following resolution was adopted:

"RESOLVED, That the New Jersey School for the Deaf establish as its policy the teaching of industries in two groups—first, homemaking industries, such as cooking, dressmaking, millinery, tailoring and repairing; second, trade industries such as printing, including photo engraving, and woodworking, including mechanical drawing, etc., and whereas the number of larger pupils is limited, be it resolved that the school confine its efforts to teaching the industries which heretofore have proven most beneficial—printing, including photo engraving, and woodworking, including mechanical drawing, and that all obsolete and unimportant trades be discontinued."

Many of the boys had been persuaded to learn shoemaking in order that the pupils' shoes could be repaired by the institution. Only two boys are now steadily employed at the trade, although the class has been maintained for about twenty years. In conformity with the above resolution, the shoe shop has been permanently closed and the pupils' shoes are now being repaired by outside shoemakers and most of the bills are being paid by the parents. This represents a saving to the State of not less than \$2,000.00 a year. In accordance with the above resolution, this fund and these boys have been transferred to build up the other trades. This economy made it possible for the school to employ the services of Mr. Johnson, instructor in mechanical drawing and woodworking, who conducts all classes in this line, and to retain the services of Mr. William D. Hunt, who has charge of all carpentering and repair work about the institution. Past experiences definitely established the fact that no one man can both teach and do the work about the institution; one duty or the other must be neglected.

The locker rooms over the laundry which had not been used for many years were removed and this space transformed into a school for dress-making and millinery.

Through the courtesy of the State House Commission, the School for the Deaf was permitted to purchase a linotype and routing machine with certain moneys saved from economic management of the food supply. The printing

office has been enlarged so that it now occupies the whole first floor of the industrial building, increasing its floor space 135 per cent. The equipment was also increased about 100 per cent. The carpenter shop was removed to the second floor, all of the partitions torn out so that it has the same floor space as the printing office. Likewise, additions have been made to its equipment. This, together with the additions to the teaching force and improvements in the course of study for each department has placed them foremost among the schools for the deaf in the world.

The Silent Worker, a paper published by the deaf, has been rejuvenated so that it now has a circulation of about 1,800 paid subscriptions. This is recognized as the best magazine for the deaf published and is read by the deaf in all parts of the world. These subscriptions, together with the advertisements, more than pay the expenses of maintaining the paper. The New Jersey School for the Deaf is recognized for its surpassing excellence in three particulars—its printing office, its woodworking shop and its magazine.

Many changes were made affecting the household. Two kitchens were consolidated making it possible to dispense with the services of a cook and an assistant cook. This arrangement resulted in a saving in coal, ice, food and salaries amounting to \$1,000.00 a year.

A single telephone which cost in the neighborhood of \$60.00 a year was replaced by a complete system costing about \$250.00. This system enabled the school to dispense with the services of a center maid whose salary and maintenance was costing the State about \$400.00 a year. It provides more efficient service as it saves the time of the teachers and employees who formerly had to come from all parts of the premises to the booth in the reception room in order to answer a telephone call. It also insures more protection in case of emergencies such as fire, sickness, etc.

The gymnasium has not been used as a gymnasium for years. Many pillars had been placed in it to support the machinery in the industrial department. It has been transformed into a fine large class room for tailoring and mending, a large coal bin which now holds over four hundred tons of coal, and into a vegetable bin. Electric lights have been introduced throughout the industrial building and the old gas system removed. Most all of this work was done by the pupils under the direction of Mr. Newcomb, in charge of electrical work, Mr. Hunt and Mr. Carson, in charge of wreckage, carpenter work, painting, etc., and Mr. McLaughlin, in charge of water, gas and plumbing. If this work had all been done by contract, it would have cost many thousands of dollars. The expense incurred was very small compared to the results obtained.

Much other work was done, such as painting, scraping of the walls and papering of the girls' dormitories, cleaning the carpets and renovating the main building, repairing all of the old springs and making over all of the old mattresses into new ones, etc.

During this world war when prices are so high and labor scarce we have tried to make a dollar go as far as possible, and with small funds, we have succeeded in placing the New Jersey School for the Deaf on a plane with other New Jersey State Institutions.

Probably the greatest improvement of the year is the new school spirit. This has been accomplished by employing the best methods of discipline and

SCHOOL REPORT.

management. Inquiries concerning these methods have been made by various institutions of this character.

The weakness of the school is its academic department. This is now being reorganized, the school is being regraded, but nothing permanent can be secured until better salaries are provided for the teachers. It is impossible for the school to employ experienced teachers for the salaries paid. Every year, five or six beginning teachers are secured. New pupils have come every year to form the beginning class. Under these inexperienced teachers, these pupils, ordinarily bright, have drifted into semibackward classes so that at the beginning of this year there were no classes doing fifth, sixth, ninth or tenth grade work. By strenuous efforts, we hope to develop a ninth grade. This is a deplorable condition but it can be remedied and the younger pupils now coming on can be given as good academic instruction as there is in this country providing we can secure the funds to pay experienced teachers to carry out the educational policy of the academic department. We hope, by the end of another year to give as favorable a report concerning the academic department as we give this year concerning the industrial department; that is, it will be second to none.

FINANCIAL REPORT

Salaries and wages \$26,262.17

OPERATING MATERIALS AND SUPPLIES

Food	\$15,063.44
Clothing	1,263.10
Fuel, light and power	5,399.47
Household	1,405.43
Farm and stable	155.61
Industrial shops	349.45
School	2,438.25
Medical and surgical	90.27
Office supplies	413.15
Sundry supplies	731.53
(Total)	\$27,309.70
Current repairs (Total)	\$3,380.56

MISCELLANEOUS EXPENSES

Traveling expenses	\$100.00
Postage	228.00
Telephone and telegraph	205.40
Insurance	1,796.77
Entertainment (films)	108.37
Expressage	123.71
Childrens' carfare	98.39
(Total)	\$2,660.64
Additions and improvements (Total)	\$5,871.56
(Grand total)	\$65,484.63

DENTIST'S REPORT

In the beginning of the year I visited the school, and with the help and co-operation of Miss Bergen, examined the mouths of all the pupils and made a record of my findings on duplicate charts supplied to me by the school printing plant. In that way, Miss Bergen had a record of the dental needs of the pupils and was guided by the markings on the charts in sending pupils to me for work.

The following is a record of the work done in my office:

Teeth extracted	38
Alloy fillings (generally known as silver).....	403
Cement fillings	11
Synthetic Porcelain fillings.....	12
Cavity lining	35
Nerves removed	7
Root canals filled.....	10
Cleaning	68
Treatments	47
 Total number operations.....	 631
Number of pupils whose mouths were completed.....	95
Number of pupils not needing attention when examined.....	52

I wish to express my appreciation for the hearty co-operation afforded me by Miss Bergen and her associates in the work done during the year. The deportment of the pupils in visiting my office was excellent and reflects credit on the discipline of the school. I also wish to express my admiration for the work done by Dr. M. D. Wagner, my predecessor, in keeping the mouths of the pupils in such good condition.

Respectfully submitted,
LEROY W. FARLEY,
Dentist.

PHYSICIAN'S REPORT

The general health of the school for 1917-1918 has been very good. About thirty cases of Liberty measles and many cases of minor treatments and accidents were taken care of in the Infirmary. Nothing of a serious nature has developed at any time. Since the installation of dietitian the disordered stomach cases have dropped 75 per cent due to a better arranged diet and more wholesome food for growing children.

Respectfully submitted,
ELMER BARWIS, M. D.,
Physician.

MANUAL TRAINING AND INDUSTRIAL SCHOOL. FOR COLORED YOUTH

W. R. VALENTINE, *Principal*

I herewith submit the annual report of the Manual Training and Industrial School for Colored Youth at Bordentown, New Jersey, covering the fiscal year November 1, 1917, to June 30, 1918.

STUDENTS

There were enrolled during the year 188 students—81 boys and 107 girls, ranging from 14 to 22 years of age and representing all the grades from the third year primary through the second year of High School. Each year the type of student accepted is an improvement over the preceding year, due partly to the fact that because of limited housing capacity, a more careful selection of applicants is possible; also because people are realizing that an industrial school is not a correctional institution.

FACULTY

Because of the higher salaries now paid teachers than formerly the school is gradually securing a better prepared grade of teacher. There are six college men and women representing such schools as Harvard, Cornell, Oberlin, and Radcliff; and four are graduates of normal schools. Others are graduates of Pratt, Tuskegee, Hampton, northern high schools with summer university courses. But the salaries of teachers here are lower than in colored schools in other sections. For example, the school lost three of its best workers this year because of far better salaries elsewhere—in one case an increase of \$880 per year and in another case \$520 per year. The school is constantly handicapped by reason of the low salaries it must offer in competition with other schools of its kind. Teachers in schools of this kind have long hours—from 6:30 A. M. to 7:30 P. M. with multifarious duties. Teachers are on duty Saturdays and Sundays.

COURSE OF STUDY

Improvement has been made in the organization of the course of study. In important subjects classes have not more than 16 students. Then too there is a small special class for students just from the south whose training has been neglected. Great stress is laid upon the fundamentals. The academic work covers elementary work and two years of high school subjects without foreign or ancient languages. Of course the academic subjects are correlated with the industrial work as far as possible.

The industrial equipment for boys' trades has been very inadequate, except for the printing and plumbing trades. The year beginning September, 1918, however, will show great improvement in the effectiveness of the industrial courses because of the completion of the new trade building which will be

thoroughly equipped with modern machinery and tools for the machine and wood working shops. One graduate of the class of 1918 is now employed as plumber with a plumbing firm and is giving eminent satisfaction. The girls' industries, however, have already been improved. Two rooms have been set aside and equipped for the sewing and dressmaking. Before this year it was housed in one small room. The classes are graded and reduced in size. Acting upon the suggestion of Mrs. O'Leary the domestic science kitchen was divided into three separate individual kitchens to approximate as near as possible the equipment and conditions of a home kitchen. The work is kept practical, this being made easy by the fact that about 200 persons are on the grounds to be fed. The transformation of the domestic science room was made entirely by the labor of students.

The vocational agricultural work, domestic science and art work of the school satisfied the requirements of the Smith-Hughes Fund. The school was reimbursed by that fund for teachers' salaries in the amount of \$1,215.

BUILDINGS, GROUNDS AND FARM

Many improvements have been made in the plant. Electric lights were installed in the administration building by student labor; wood floor laid in the student dining room over the cement floor; partitions removed in the basement to provide a large airy room for storeroom with shelves, and twenty bins lined with galvanized iron. Supplies can now be cared for without waste. Two large open dormitories in the girl's building were divided into smaller rooms by means of plaster board partitions; the boys' and girls' buildings painted on the inside; the old carpenter shop has been remodelled, painted and equipped for a recreation room thereby relieving the housing congestion in the boy's building. The boy's trade building, addition to the girl's dormitory, sewer disposal plant, domestic water supply are in process of construction and will be completed during the next fiscal year. The school has bought seven double tenement houses adjoining the grounds, for two of which contracts are now let for moving and remodelling for teachers' cottages. The others are rented to a firm nearby doing government work. All of this is in addition to improvements made on the farm, including fencing, cleaning of land, increasing cultivatable land.

One hundred fifteen acres (115) of land are in actual cultivation. Moreover 40 acres of campus is to be kept up. The farm in eight months has earned \$9,229.87 in farm products as against \$10,652.77 for twelve months last year. The soil is gradually being built up to a high degree of cultivation. For many years the farm was rented out to a canning company which depleted the soil. The stock consists of nine (9) horses, twenty-five (25) head of cattle and one hundred (100) swine.

EXTENSION ACTIVITIES

The school hopes to increase its outside or extension activities in order to make it serve the people of the State. The instructor of agriculture has been sent into Salem and Cumberland Counties for the extension teaching of

agriculture to colored farmers of those counties. The work has been thus far confined to two counties for the sake of intensive work. In all cases the work has been done in co-operation with the farm demonstrators of the counties and the leading colored people. The method has been that of (1) personal visits to the farms and making suggestions for improvements, (2) meetings of farmers where experts from the State Department of Agriculture and practical farmers held conferences, (3) organization of the farmers. Seven meetings were held during this fiscal year, with a total attendance of 288.

The meetings of the Teacher's Study Center consisting of Public School teachers of Trenton, Bordentown, Princeton, Mt. Holly, Burlington, and Florence were held monthly during this year. The purpose of the meetings was to determine how the schools may better serve the communities in which they are located. The State Colored Teachers meeting was held at the school May 18, 1918, at which time colored educators from this section of the country addressed the visiting teachers from all parts of the State. The student quartette and glee clubs visited a number of cities giving concerts. They entertained the soldiers at Camp Dix twice during the year. The teachers of the school led the colored people of the town in the two Red Cross Campaigns; students bought war stamps, and did Red Cross work. The colored branch of the Red Cross uses the sewing rooms of the school for Red Cross work once a week. Mrs. W. R. Valentine headed a committee of colored ladies of the State who raised among the colored people of the State \$2,282.15 in cash and \$1,046 in new furniture as a contribution to the equipment of the colored Hostess House at Camp Dix, established and operated by the National Board of the Y. W. C. A. Teachers of the school volunteer their services each Sunday to assist as hostesses at Camp Dix.

Because of the military training given at the school, three of the recent graduates were made non-commissioned officers in the army soon after being drafted.

NEED OF HOUSING SPACE

Among the many needs of the school none is so great as the necessity for housing space. The demand for the school is growing. There was a large waiting list this year, and from present indications there will be a much larger one for next year. The normal capacity of the school is only 96, whereas at least 160 students are in daily attendance, thus indicating the crowded condition. The annex to the girls' building, which will be completed some time in 1919, will relieve the present congestion only, allowing no room for growth. The necessary overhead expenses in maintaining the present plant would maintain at least 100 more students without appreciable additional expense. The per capita cost would be greatly reduced and the school be allowed to be of much greater service to the State. The building program should provide for 500 boys and girls. The value of industrial training has become so apparent because of lessons learned from experiences of the war, and especially by the democratization of American labor which has given the

Negroes industrial opportunities, that the school will find it difficult to meet the demand. The improved trade equipment now being installed will greatly enhance the value of the school also.

It has been proven that the colored people of the country can be set down as a great asset to the nation if given the opportunity to grow to their full stature. The Bordentown School is one of the important instruments through which that growth may be attained.

SCHOOL OF INDUSTRIAL ARTS OF TRENTON

ROBERT C. BELVILLE, *Secretary Board of Trustees*; FRANK F. FREDERICK, *Director School of Industrial Arts*

I submit herewith statement of the enrolment in this school for the school year 1917-18.

ENROLMENT OF STUDENTS 1917-18

Total number enrolled		1046
Males	625	
Females	421	
	—	1046
Attending evening only	875	
Attending day only	140	
Attending both day and evening	31	
	—	1046

ENROLMENT IN DEPARTMENTS

Fine Art	146	
Art-Crafts	26	
Mechanical	273	
Architectural	50	
Electrical	30	
Radio	93	
Chemical	51	
Dressmaking and Millinery	264	
Children's (Saturday only)	49	
Woodworking	30	
Day Technical Department	48	
	—	
	1060	
In more than one department	14	
	—	1046

SUMMARY OF TRADES AND PROFESSIONS REPRESENTED IN THE SCHOOL

Employed in Shops, Mills and Factories	113
Machinists and Machinists' Apprentices	85
Potters	32
Building and Woodworking Trades	54
Electrical Trades	20
Draftsmen and Designers	27
Clerks, Stenographers, etc.	184
Housekeepers	21

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School teachers	85	
Other Trades and Professions	103	
No occupation reported	97	
At Home	52	
Students from other schools	116	
Students of S. I. A. only	57	
	<hr/>	1046
Total Enrolment Year 1917-18	1046	
Total Enrolment Year 1916-17	1015	
	<hr/>	
Increase over last year	31	

The City of Trenton passed an Ordinance (April 3, 1918) appropriating \$45,000 for the erection of a shop building for this school. It was the intention to erect this building at once, but the Federal Reserve Board declined to approve the bond issue. The building will be erected as soon as possible and will include a machine shop, a wood shop and a pottery.

Respectfully submitted,

FRANK F. FREDERICK,
Director.

FINANCIAL REPORT OF BOARD OF TRUSTEES OF SCHOOLS FOR INDUSTRIAL EDUCATION OF TRENTON FOR YEAR ENDED JUNE 30, 1918

RECEIPTS

City Appropriation	\$18,000.00	
State Appropriation	10,000.00	
Tuition Fees	3,293.36	
Interest on Deposits	58.42	
Materials sold to pupils	2,728.64	
Rent	663.70	
Prize Money	432.50	
Shop Building Fund	2,499.51	
	<hr/>	
	\$37,676.13	
Balance on hand July 1, 1917	4,267.63	
	<hr/>	\$41,943.76

DISBURSEMENTS

Teachers' Salaries	\$22,390.27
General Salaries	2,035.13
Janitors' Salaries	1,281.00
Fuel	828.63
Light and Power	602.77
Furniture and Equipment	1,884.93

SCHOOL REPORT.

Lantern Fund	50.00
Printing	521.25
Materials	3,600.52
Advertising	272.74
Repairs	346.93
Miscellaneous	862.62
Models	300.75
Library	134.87
Insurance	55.89
Prizes	173.09
Athletics	77.96

\$35,419.35

Cash Balance June 30, 1918:

Shop Building Fund	\$5,544.60
Roebing Prize	250.00
Regular Account	729.81

\$6,524.41

\$41,943.76

ROBERT C. BELVILLE,
Secretary Board of Trustees.

BOARD OF TRUSTEES OF SCHOOLS FOR INDUSTRIAL EDUCATION, HOBOKEN

SHOWING NUMBER OF BOYS IN THE INDUSTRIAL CLASSES

	Shop Practice		Electricity	Total
	City School	Ind. School	City School	
No. 1	389		110	499
No. 2		172	57	229
No. 3	109			109
No. 4	131		60	191
No. 5	38			38
No. 6		167	80	247
No. 7	122			122
No. 8	328		67	395
No. 9	242		24	266
High Vocational	133	Discontinued		133
Total	1492	339	398	2229

SHOWING NUMBER OF GIRLS IN THE INDUSTRIAL CLASSES

	Sewing		Cooking		Millinery		Total
	City Sch.	Ind. Sch.	City Sch.	Ind. Sch.	City Sch.	Ind. Sch.	
No. 1	326			172			498
No. 2	199		72				271
No. 3	41	137					178
No. 4	77	103	82				262
No. 5	19	22					41
No. 6	177		81				258
No. 7		95					95
No. 8	282		62				344
No. 9	204		78				282
High Vocat'l	80						80
		36		36		36	108
Total	1405	393	375	208		36	2417

RICHARD A. BEYER,
Director.

FINANCIAL STATEMENT

RECEIPTS

Balance of funds on hand July 1, 1917.....	\$12.57
Appropriations:	
City of Hoboken.....	\$7,000.00
State of New Jersey	7,000.00
Interest on bank balances	36.72
Return of petty cash deposit	25.00

Sales:

Prepared by pupils—miscellaneous.....	179.91	
Total receipts for year		14,241.63
Receipts and balance on hand.....		<u>\$14,254.20</u>

DISBURSEMENTS

(1) GENERAL ADMINISTRATION

Secretary, salary	\$400.00	
Clerk to Supervisor	750.00	
Office—Supplies, stationery	140.02	
Telephone service	91.34	
Sub-total		\$1,381.36

(2) SCHOOL ADMINISTRATION AND INSTRUCTION

Supervisor, salary	\$800.00	
Teachers, salaries	6,151.50	
Supplies and Material:		
Domestic Science	98.70	
Sewing	337.99	
Millinery	20.07	
Dressmaking	90.72	
Equipment:		
Laundry	140.45	
Sub-total		\$7,639.43

(3) OPERATION AND MAINTENANCE

Janitor, salary	\$1,000.00	
Supplies	104.12	
Repairs	118.29	
Water	22.73	
Incidentals	125.08	
Sub-total		\$1,370.22
Total cost of operating Day school..		<u>\$10,391.01</u>

EVENING SCHOOL

(4) SALARIES, ETC.

Teachers	\$2,323.00	
Janitor service	114.00	
Advertising	37.42	
Sub-total		<u>\$2,474.42</u>

SUPPLIES AND MATERIAL

Sewing	\$380.65	
Millinery	61.22	
Light and power	376.71	
	<hr/>	
Sub-total		\$818.58
		<hr/>
Total cost of operating Evening school		\$3,293.00

SUMMARY

Receipts for year and balance on hand.....		\$14,254.20
Disbursements for year:		
Day school	\$10,391.01	
Evening school	3,293.00	
	<hr/>	
Total	\$13,684.01	
Balance at hand close of year June 30, 1918..	570.19	
	<hr/>	
Total		\$14,254.20

RECONCILIATION

Balance in Second National Bank, Hoboken.		\$817.51
Balance in Hoboken Bank for Savings.....		22.82
		<hr/>
		\$840.33
Balance as shown above	\$570.19	
Warrants outstanding	270.14	
	<hr/>	
		\$840.33

Respectfully submitted,

BERNARD VEZZETTI,
Treasurer.

NEWARK TECHNICAL SCHOOL

D. R. HODGDON, *Director*

In accordance with the provisions of the statute, I am submitting herewith a report of the Newark Technical School for the year ending June 30, 1918, together with the financial statement of receipts, disbursements and federal funds, as they appear on the books of the school, for the fiscal year ending April 30, 1918.

The Newark Technical School has passed a successful year as an Institution of learning. More students have come to its doors than in the previous years and more courses have been demanded in technical subjects by the students in the vicinity of Newark. The total enrolment for the year is 573. It consists of 381 resident students and 192 non-resident students. 283 took the general course, 58 the special students drawing course, 37 electrical course, 40 machinist, 31 tool making, 18 plumbing, 14 building construction, 7 surveying, 11 decorative designing, 4 foundry practice, 3 in assaying, 43 in preparatory class, 24 in radio course of the United States Army. This last course is rapidly growing. The School has added a course in industrial chemistry and changed its course in electricity to electrical engineering. 100 students from the United States Army were also trained in the School during the summer, as planned by the Board of Trustees. Early in the spring there were 43 in automobile mechanics, 16 in machine shop practice and 41 in electrical work.

In May the Trustees appointed Dr. Daniel R. Hodgdon, Director of the Institution and made Prof. Charles A. Colton, Director Emeritus. The Institution is now looking forward to the time when it can become an industrial college, giving co-industrial education to young men in the vicinity of Newark and in this State, which will prepare them to become lieutenants and leaders in the industrial field. This idea is creating a great deal of interest in the city and the present director believes that it will not be long before the industry will demand the establishment of an educational institution, which shall be the center from which special trained men may fill the very rapidly growing demands. The Institution will be the only one of its type this side of Cincinnati, and will be a great asset to the educational policies of the State of New Jersey. The director calls this plan to the attention of the Board of Education and asks for its co-operation, together with the co-operation of the State Department of Education. It is planned during the year to train, if arrangements can be made, 300 or more students, during the day, as special students from the United States Army Training Corps.

The evening courses are rapidly increasing and the demand upon the school for the type of education the school is giving, is far greater than its resources, which taxes its income beyond its present limit. It is believed that this school fills a vital part, and can fill a greater field of activity in educational fields for the future. Every effort will be made to co-operate in every way to make this school useful to the State of New Jersey, as well as to the nation.

Annexed hereto is a financial statement for the year ending April 30, 1918.

COMMISSIONER OF EDUCATION.

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STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS

For the fiscal year ended April 30, 1918

CASH—GENERAL FUND

RECEIPTS

Appropriation State of New Jersey.....	\$10,000.00
Appropriation City of Newark.....	20,000.00
Interest on Amortization Fund Bonds.....	610.00
Interest on Deposits.....	646.89
Tuition Fees	3,997.50
Rents and Telephone from Newark Institute.....	1,259.26
Chemical Apparatus sold	169.29
Locker Rents	24.75
Merchandise sold	2,014.95
<hr/>	
Total Receipts	\$38,722.64
Balance on hand May 1, 1917.....	13,270.82
<hr/>	
	\$51,993.46

DISBURSEMENTS

Administration	
Salaries	\$6,880.95
Printing and Stationery.....	74.63
General Office Expense.....	1,577.62
Educational	
Salaries	15,337.51
Laboratory Expense	672.74
Maintenance and Operation	
Janitors' Salaries and Supplies.....	2,155.56
Light and Heat.....	906.60
Power	1,402.96
Water	62.74
Insurance	209.98
Repairs and Renewals.....	520.85
Interest on Mortgage.....	750.00
New Equipment	2,535.23
Furniture and Fixtures.....	37.80
Insurance paid in advance.....	1,301.84
Merchandise purchased	2,008.35
<hr/>	
Total Receipts	\$36,435.36
Balance on hand April 30, 1918.....	15,558.10
<hr/>	
	\$51,993.46

REPORT OF THE BOARD OF TRUSTEES OF THE TEACHERS' RETIREMENT FUND

For the Year Ending June 30th, 1918 .

LÉGISLATIVE RECORD

From the beginning, the Teachers' Retirement Fund has been a part of the School Law of the State of New Jersey. The Legislative enactments are as follows :

Chapter 32, page 58, Laws of 1896—approved March 11th.

Chapter 178, page 475, Laws of 1899—approved March 24th.

Chapter 96, page 270, Laws of 1900; Article XXIII., School Law—approved March 23rd.

Chapter 36, page 150, Laws of 1902; Article XXVII., School Law—approved March 26th.

Chapter 1, page 80, Laws of Second Special Session, 1903; Article XXV., School Law—approved October 19th.

Chapter 95, page 194, Laws of 1905—approved April 3rd.

Chapter 314, page 689, Laws of 1906—approved June 13th.

Chapter 139, page 365, Laws of 1907; Article XXV., School Law—approved May 7th.

Chapter 106, page 166, Laws of 1915—approved March 30th.

Chapter 180, page 514, Laws of 1918—approved March 4th.

APPROPRIATION TO PAY ADMINISTRATIVE EXPENSES

The first Act by which the State appropriated money toward the expense of administering the Fund was Chapter 95, page 194, Laws of 1905, approved April 3rd, which allowed \$1,500.00, and became effective November 1, 1906. Prior to said date, administrative expenses were taken from the Fund.

MEMBERSHIP UNDER ACT OF 1907

Less than 150 of the present 15,000, or more, members are under Acts prior to that of 1907.

REPORT

Report of the Board of Trustees of the Teachers' Retirement Fund of the State of New Jersey for the fiscal year 1917-1918; presented to the Annual

SCHOOL REPORT.

Convention of the Teachers' Retirement Fund, held in Part II., Supreme Court, State House, Trenton, New Jersey, at twelve o'clock, noon, on Saturday, September 28, 1918.

September 28th, 1918.

To the Members of the Teachers' Retirement Fund of the State of New Jersey:

In compliance with the law, I have the honor to submit the report of the Board of Trustees for the fiscal year which ended June 30, 1918.

Respectfully,

ELIZABETH A. ALLEN, Secretary.

STATE TREASURER'S REPORT FOR THE FISCAL YEAR 1917-1918

(*Note.*—In presenting the State Treasurer's Report, it should be stated that Premium and Accrued Interest on investments are paid out of the "Current Expense Account," and are not charged to the "Investment Account.")

The State Treasurer's Report is as follows:—

STATE TREASURER'S DEPARTMENT

Trenton, N. J., July 25, 1918.

The Board of Trustees, Teachers' Retirement Fund.

GENTLEMEN:—The following is the annual statement of receipts and disbursements of the Teachers' Retirement Fund for the year ending June 30, 1918:

REPORT

Balance in bank, July 1, 1917.....		\$199,833.28
Members' dues	*\$259,464.67	
Interest on Investments.....	11,578.99	
Interest on deposits in bank.....	5,764.33	
Annuity	726.75	
		<hr/>
		*277,534.74
		<hr/>
		\$477,368.02

*The actual income from members' dues, paid and payable, was at least \$12,000 in excess of these figures. At the time the State Treasurer's books closed, June 30, 1918, many districts had not remitted for the last (April-June) quarter. The State Treasurer reports that receipts for July, 1918, were \$35,052.15, against \$22,953.04, in July, 1917; an increase of \$12,099.11. The Trustees have taken action to learn prior to January 1, 1918, precisely what is due the Fund.

DISBURSEMENTS

Annuities	\$274,451.72	
Expenses of Arvine H. Phillips Property.....	964.98	
Temporary Investments	106,872.53	
Premium and Accrued Interest.....	1,372.92	
		<hr/>
		383,662.15
		<hr/>
		\$93,705.87

The following are the securities of the TEMPORARY INVESTMENT account:—

BONDS

	<i>Par</i>	<i>Cost</i>	<i>Book Value</i>
36M City of Paterson Sewer Funding 5%...	\$36,000.00	\$36,208.80	\$36,000.00
9M due 1919			
9M due 1920			
9M due 1921			
9M due 1922			
22M City of Orange Sewer Refunding 5%..	22,000.00	22,249.70	22,000.00
2M due 1919			
2M due 1920			
3M yearly 1921-1926			
16M City of Orange Central Fire House 5%.	16,000.00	16,172.00	16,000.00
2M due yearly 1919-1926			
10M Town of Montclair Impt. 5% due 1924..	10,000.00	10,152.49	10,000.00
15M Town of Montclair School 4½%.....	15,000.00	14,945.30	14,945.30
2M due yearly 1919-1925			
1M due 1926			
5M City of Orange Sewer and Fire House 5%	5,000.00	5,164.24	5,000.00
3M due 1932			
2M due 1937			
2M City of Perth Amboy Water 4½% due			
1922	2,000.00	1,980.00	1,980.00
		<hr/>	<hr/>
	106,000.00	106,872.53	105,925.30

PERMANENT PRINCIPAL

RECEIPTS

Balance in bank July 1, 1917.....	\$19,664.24
Duplicate Certificates	\$9.00
Investments (Securities paid off)—	
A. H. Phillips property sold.....	\$8,000.00
Ralph Bernhardt on account.....	250.00

SCHOOL REPORT.

Mutual Land Improvement Co.....	3,750.00		
Sophie B. and Peter Watson.....	6,000.00		
Katherine Scholl	4,500.00		
		22,500.00	
			22,509.00
			\$42,173.24

DISBURSEMENTS

Investments—			
6M Town of Union, St. Impt. 5% Bonds	\$6,000.00		
Due 1923			
5M Town of Union, Fire and Police			
Signal System 5% Bonds.....	5,000.00		
Due 1923			
14M County of Hudson, Park 4% Bonds..	12,880.00		
Due 1956			
3M City of Bayonne, Gold Funding 5%..	3,000.00		
Bonds due 1928			
2M City of Perth Amboy, Park Funding			
4½% Bonds	1,912.17		
1M due 1956			
1M due 1957			
		28,792.17	
			\$13,381.07

The following are the securities of the PERMANENT PRINCIPAL:—

BONDS AND MORTGAGES

<i>Mortgagor</i>	<i>Property</i>		
Trustees of the Olivet Presbyterian Church...	Atlantic City	5%	\$7,000.00
Samuel, Daniel F. and James V. Comly (At-			
lantic City Loan & Building Co.).....	Atlantic City	6	10,000.00
Lewis T. and Mary L. Bryant.....	Atlantic City	5	20,000.00
Jacob Pashin (Sarah and Morris Abrams)....	Plainfield	5	4,000.00
Simon Senville (Samuel Ginsburg).....	Passaic	6	7,500.00
Peter and Annie Heck (Samuel Ginsburg)...	Passaic	6	5,000.00
Abraham and Annie Kunzman (Morris and			
Sarah Abrams and Abraham and Annie			
Kunzman)	Plainfield	6	10,500.00
Joseph Perry, et ux.....	Westfield	6	4,000.00
Wolf and Fannie Levien.....	New Brunswick	6	5,000.00
Hyman and Annie Kramer.....	Passaic	6	6,000.00
Bessie Rappe (Max and Rose Slaff).....	Passaic	6	4,000.00

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Abraham and Sarah Kanter.....	Passaic	6	4,000.00
William C. Godstrey, et ux (Guaranteed by Guarantee Mtge. and Title Ins. Co. of Pas- saic)		5½	14,000.00
Ralph Bernhardt	W. New York	6	29,750.00
			<hr/> \$130,750.00

BONDS

3 M	Board of Education of Borough of Lodi, Bergen Co.....	5%	\$3,000.00
	1M 1938		
	1M 1939		
	1M 1940		
10M	Borough of Haddon Heights, Camden Co., School.....	4½	10,000.00
	Due 1M yearly 1926-1935		
15M	Margate City, Atlantic Co., Water due 1941.....	5	15,000.00
5M	Margate City, Atlantic Co., Sewerage due 1940.....	5	5,000.00
20M	Margate City, Atlantic Co., School due 1921-1950.....	5	20,000.00
5M	Borough Holly Beach, Cape May Co., Funding due 1940....	5	5,000.00
10M	Township of Bernards, Somerset Co., School.....	5	10,000.00
	1M due 1920		
	3M due 1921		
	3M due 1922		
	3M due 1923		
20M	Board of Education, Township of Overpeck, Bergen Co.....	5	20,000.00
	5M annually 1939-1942		
5M	Board of Education, Township of Overpeck, Bergen Co...	5	5,000.00
	Due 1937		
6500	Margate City, Atlantic Co., Beach Improvement due 1945..	5	6,500.00
5M	Margate City, Atlantic Co., Fire Station due 1945.....	5	5,000.00
7M	Margate City, Atlantic Co., Improvement due 1936.....	5	7,000.00
6M	Town of Union, Street Improvement due 1923.....	5	6,000.00
5M	Town of Union, Fire and Police Signal System.....	5	5,000.00
	Due 1923		
14M	County of Hudson, Park due 1956.....	4	12,880.00
3M	City of Bayonne, Gold Funding due 1928.....	5	3,000.00
2M	City of Perth Amboy, Park Funding.....	4½	1,912.17
	1M due 1957		
	1M due 1956		
			<hr/> \$140,292.17

Bonds and Mortgages.....	\$130,750.00
Bonds	140,292.17
<hr/>	
	\$271,042.17

SCHOOL REPORT.

ASSETS

The following is the condition of the Fund at the close of business June 30, 1917:

Investments	\$271,042.17	
Balance in bank, Investment Account.....	13,381.07	
		\$284,423.24
Temporary Investments	106,872.53	
Balance in bank, General Account.....	93,705.87	
		\$200,578.40
		\$485,001.64

Respectfully submitted,
(Signed) Wm. T. READ,
Treasurer.

COMPARATIVE ABSTRACT OF STATE TREASURER'S REPORTS
FOR 1914-'15, 1915-'16, 1916-'17 AND 1917-'18

(NOTE.—*Liabilities on the year's business, none; annuities and expenses paid in full to midnight of June 30th.*)

	1914-1915	1915-1916	1916-1917	1917-1918
*Receipts	\$246,390.22	\$278,628.86	\$313,953.41	†\$300,043.74
**Disbursements	221,163.82	249,502.48	293,015.82	412,454.32
Assets at close of fiscal year	432,183.55	465,309.93	484,247.52	†485,001.64

LIST OF BENEFICIARIES TO JUNE 30th, 1918

The following is a schedule of all members who have been retired on annuity from the beginning to June 30, 1918, and shows; (1) The annuity and membership numbers; (2) Name, with district and county retired from;

*It is believed that the actual assets in hand and due on June 30th, were not less than \$500,000.00; see foot-note, first page, State Treasurer's report.

†It is estimated that the 1917-'18 income and assets were about \$15,000.00 greater than the figures here given. See foot-note, first page of State Treasurer's report.

*Receipts include "securities paid off":—1914-'15, \$10,500.00; 1915-'16, \$14,500.00; 1916-'17, \$37,000.00; 1917-'18, \$22,500.00.

**Disbursements include "investments":—1914-'15, \$14,000.00; 1915-'16, \$18,870.49; 1916-'17, \$35,000.00; 1917-'18, \$129,372.53; not including premiums and accrued interest.

(3) Net annual value of annuity,—see "Note"; (4) Date annuity began to accrue,—see "Note"; (5) Total received to June 30, 1918. The 1917-1918 annuities begin with Number 731.

NOTE.—The first annuity was granted December 3, 1897; numbers 1, 2 and 3 began to accrue December 1, 1897. Annuities granted under Acts prior to that of 1907 are subject to one per cent deduction for the Fund and are indicated by a dagger—†. All annuities granted under Acts prior to that of 1907 began to accrue on the first day of the quarter succeeding the date of granting, except Nos. 1, 2 and 3, which began to accrue December 1, 1897. Under the latest Act, that of 1907, annuity begins to accrue from the date it is granted, and no deduction is made for the Fund. The Act of 1906 raised dues from a flat one per cent to two, two and one-half and three per cent, (based on total years of public school teaching service prior to date of originally becoming a member,) for all old members who in writing should accept the Act of 1906 prior to Jan. 1, 1907, and for all teachers who should join voluntarily prior to Jan. 1, 1908; and made membership part of the contract of all teachers who should be appointed to New Jersey's public school system on or after Jan. 1, 1908. Annuities granted under the Act of 1906 are indicated by a double dagger—††. The Act of 1907 retained the aforesaid 1906 provisions, except that it extended to January 1, 1909, inclusive, the period during which old members and teachers appointed prior to Jan. 1, 1908, might accept the new provisions. All annuities below-scheduled were granted under the Act of 1907, except those indicated by a single dagger—†—(Act prior to 1906,) or a double dagger—††—(Act of 1906). All annuities to No. 134, inclusive, were granted under Acts prior to that of 1906. The date given for each annuity is the date on which the annuity began to accrue, irrespective of the Act under which it was granted. The amount of annuity stated is the net amount; i. e., the amount actually received by the annuitant. Net is less than gross for all annuities granted under Acts prior to 1907, because one per cent is deducted for the Fund. Net is less than gross for some of the 1907-Act annuities, because the quarters total a few cents less than the gross.

Deaths are indicated by an asterisk—*. Annuities which deceased before the deficit to the Fund was paid are indicated by a double asterisk—**; these are charged with the amount of accrued annuity, (amount Recd. from Fund,) and same is credited under amount paid to Fund, (amount paid on account of deficit). The amount of annuity charged to decedents includes balance due estate on June 30, 1918; where such a balance exists, it is indicated by †*. Annuities granted under all acts prior to 1907 are half the average of the last five years' salary; minimum \$250.00, maximum \$600.00, with one per cent deducted for the Fund, and begin to accrue on the first day of the quarter next following the granting. Annuities granted under the Act of 1907 are six-tenths the average of the last five years' salary; minimum \$250.00, maximum, \$650.00; nothing deducted for the Fund, and begin to accrue from the date of granting.

Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1918.
*† 1—131:	Joseph P. Leighton, Washington Township, Morris Co.....	\$247 48	Dec. 1, 1897	\$1,292 78°
*† 2—2132:	Almira Walker, Orange, Essex Co.	247 48	" " "	2,355 38°
†*† 3—2131:	Abby M. Munn, Montclair, Essex Co.	371 24	" " "	5,700 01°
*† 4— 8:	Jacob Moench, Carlstadt, Bergen Co.	247 48	Jan. 1, 1898	95 18°
*† 5—2130:	Helen F. Hall, Maurice River Township, Cumberland Co.....	247 48	Apr. 1, 1898	948 88°
† 6—510:	Phebe Hancock, Newark, Essex Co.	495 00	" " "	10,023 73
*† 7—1596:	Phoebe A. Brigham, Jersey City, Hudson Co.	504 88	" " "	2,603 06°
*† 8—1553:	Imogene L. Colvin, Jersey City, Hudson Co.	308 88	July 1, 1898	866 58°
*† 9—1238:	Sarah J. Reynolds, Paterson, Passaic Co.	265 80	Jan. 1, 1899	4,335 99°
*† 10—2211:	Clara Bonham, Kingwood Township, Hunterdon Co.	247 48	" " "	1,325 79°
† 11—1060:	Mrs. Helen S. Donkersley, Paterson, Passaic Co.	321 76	" " "	6,274 32
*† 12—2118:	Thamer Snover, Stillwater Township, Sussex Co.	247 48	Apr. " "	1,237 40°
*† 13—2264:	Anna Marshall, Millville, Cumberland Co.	247 48	" " "	223 91°
*† 14—478:	Louise Chedister, Newark, Essex Co.	396 00	" " "	2,542 32°
*† 15—840:	Sallie T. Brown, Camden City, Camden Co.	371 24	" " "	2,227 45°
*† 16—838:	M. Jennie Wood, Camden City, Camden Co.	371 24	" " "	5,870 43°
*† 17—2210:	James Corkey, Lacey Township, Ocean Co.	297 00	" " "	470 25°
† 18—1383:	Jennie Hutchinson, Trenton, Mercer Co.	247 48	" " "	4,763 99
† 19—1155:	Annie M. Atkinson, Paterson, Passaic Co.	247 48	Jan. 1, 1900	4,578 38
*† 20—347:	Mrs. E. Jennie Wortman, Rutherford Borough, Bergen Co.....	311 84	" " "	1,046 48°
*† 21—2127:	Mrs. Harriet J. Strang, Monroe Township, Gloucester Co.....	247 48	" " "	2,319 22°
† 22—2038:	Anna R. Burr, Northampton Township, Burlington Co.....	247 48	" " "	4,578 38
*† 23—2021:	Hattie F. Hoffman, Penn's Grove Borough, Salem Co.....	247 48	" " "	247 48°
† 24—2187:	Samantha Wheeler, Bloomfield, Essex Co.	272 24	" " "	5,036 45
*† 25—2230:	Mrs. Hannah A. Collins, Commercial Township, Cumberland Co.	247 48	" " "	164 86°
*† 26—223:	Ella Hazard, Rahway, Union Co.	247 48	Apr. " "	2,041 71°
†*† 27—1417:	Janet F. Wright, Trenton, Mercer Co.	247 48	" " "	2,123 76°
*† 28— 64:	Emily S. Sayre, Woodstown Borough, Salem Co.	350 68	" " "	185 09°
† 29—935:	Hanna Oven, Orange, Essex Co..	247 48	July 1, 1900	4,454 64
*† 30—2243:	Mrs. Mary S. Bond, Delaware Township, Hunterdon Co.....	247 48	" " "	2,041 71°
*† 31—199:	Carrie B. Runyon, Plainfield, Union Co.	371 24	Oct. 1, 1900	1,922 18°
† 32—416:	Mrs. Esther J. Crosby Parker, Newark, Essex Co.	495 00	Jan. 1, 1901	8,662 50
*† 33— 14:	Sarah R. Bowne, Princeton Borough, Mercer Co.	292 04	" " "	5,026 28°
*† 34—122:	Mary G. Lindsley, Morristown, Morris Co.	284 60	Jan. 1, 1901	388 13°
*† 35—655:	Laura C. Delano, Newark, Essex Co.	321 76	Apr. " "	884 84°
† 36—268:	Kate G. Focer, Glassboro Township, Gloucester Co.....	247 48	" " "	4,269 03
*† 37— 32:	Nathaniel Kiser, Mendham Township, Morris Co.....	247 48	" " "	3,543 54°
*† 38—841:	Helen Bamber, Camden City, Camden Co.	247 48	" " "	3,804 58°
*† 39—2353:	Ellen Smith, New Brunswick, Middlesex Co.	247 48	" " "	2,384 96°
*† 40—2354:	Harriet E. Smith, New Brunswick, Middlesex Co.....	247 48	July " "	1,845 97°
*† 41—1906:	Helen E. Tift, Hoboken, Hudson Co.	415 80	" " "	2,113 65°

†Granted under Act prior to 1906.

°Deceased.

†Balance due estate of deceased annuitant.

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Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1918.
† 42— 673:	Alice E. Johnson, Newark, Essex Co.	\$396 00	July 1, 1901	\$6,732 00
† 42— 297:	Jane E. Johnson, Newark, Essex Co.	594 00	Oct. 1, 1901	2,201 00*
† 44—1214:	Mrs. Orrell F. Elwell, Trenton, Mercer Co.	247 48	" " "	1,535 99*
† 45— 12:	Mrs. Hattie A. Lindabery, Lebanon Township, Hunterdon Co.	247 48	Jan. 1, 1902	4,083 42
† 46— 28:	Noah E. Jeffery, Howell Township, Monmouth Co.	247 48	" " "	2,774 07*
† 47— 377:	Ellen Couenhoven, Passaic City, Passaic Co.	316 80	" " "	1,900 80*
† 48—2345:	Sarah Rankinback, New Brunswick, Middlesex Co.	356 40	Apr. " "	63 46
† 49—2191:	Kate F. Hubbard, Bloomfield, Essex Co.	272 24	" " "	4,423 90
† 50— 217:	Minnie Whitehead, Rahway, Union Co.	247 48	" " "	2,696 84*
† 51— 61:	Mrs. Jennie L. Morris, Long Branch, Monmouth Co.	297 00	July " "	123 75*
† 52—2356:	Emma L. Hodgkins, Boonton Town, Morris Co.	247 48	" " "	2,603 38*
† 53—1728:	Emma Johnson, Jersey City, Hudson Co.	401 92	Jan. 1, 1903	6,229 76
† 54—1534:	Florence M. Coppinger, Jersey City, Hudson Co.	323 12	" " "	5,008 36
† 55— 761:	Margaret A. Rasch, Newark, Essex Co.	321 76	" " "	4,987 28
† 56— 139:	Emily A. Davis, Lambertville, Hunterdon Co.	247 48	" " "	2,835 94
† 57— 321:	Priscilla H. Redfield, Gloucester City, Camden Co.	346 48	Apr. " "	464 15*
† 58—2034:	Jeremiah Kelly, Hoboken, Hudson Co.	594 00	Jan. " "	2,722 01*
† 59—1475:	Mrs. Eliza J. Eveland, Jersey City, Hudson Co.	534 60	" " "	164 82*
† 60— 319:	William Dougherty, Gloucester City, Camden Co.	495 00	" " "	1,894 75*
† 61— 124:	Ida F. Stout, Lambertville, Hunterdon Co.	247 48	" " "	2,835 94
† 62— 42:	Rachel H. Strong, Waterford Township, Camden Co.	297 00	" " "	2,823 11*
† 63— 601:	Eunice A. McLeod, Newark, Essex Co.	441 52	Apr. 1, 1903	6,733 13
† 64—2049:	Ephraim M. Shadinger, Howell Township, Monmouth Co.	247 48	" " "	2,523 63*
† 65— 97:	Mrs. P. K. Hendrickson, Freehold Township, Monmouth Co.	247 48	" " "	2,326 85*
† 66—2194:	Jane Eliza Baird, Bloomfield, Essex Co.	254 92	" " "	2,837 53
† 67—2102:	Sanford S. White, Byram Township, Sussex Co.	247 48	" " "	2,774 07
† 68—1962:	Rev. Samuel D. Quigg, Beverly Township, Burlington Co.	247 48	" " "	2,088 11*
† 69— 858:	Anita A. Wright, Camden City, Camden Co.	349 96	" " "	5,336 89
† 70—2353:	Nehemiah Reece Whitaker, Lumberton Township, Burlington Co.	247 48	Oct. 1, 1903	2,650 23
† 71—2188:	Edith E. Hulin, Bloomfield, Essex Co.	272 24	" " "	2,419 82*
† 72— 634:	M. Adelaide Healy, Newark, Essex Co.	321 76	" " "	4,745 96
† 73—2346:	Annie B. Stelle, New Brunswick, Middlesex Co.	336 60	" " "	1,053 48*
† 74—1292:	Lydia V. Marden, Trenton, Mercer Co.	257 40	" " "	1,179 60*
† 75—1422:	Marcia M. Wright, Trenton, Mercer Co.	356 40	" " "	2,251 18*
† 76— 301:	Jacob B. Maxwell, South Orange, Essex Co.	594 00	" " "	262 80*
† 77—1254:	George H. Voorhis, Trenton, Mercer Co.	594 00	Jan. 1, 1904	4,378 22*
† 78—2099:	John M. Sullivan, Washington Township, Burlington Co.	247 48	" " "	1,326 47*
† 79— 5:	Mrs. Deborah J. Bateman, Commercial Township, Cumberland Co.	247 48	" " "	2,588 46
† 80—2094:	Elias L. Dalrymple, Franklin Township, Hunterdon Co.	247 48	" " "	2,588 46

†Granted under Act prior to 1906.

*Deceased.

**Deceased before deficit to Fund was paid.

SCHOOL REPORT.

Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1918.
†*† 81—2041:	Anna R. Johnson, Lumberton Township, Burlington Co.....	\$247 48	Jan. 1, 1904	\$1,017 12*
† 82—2493:	Mrs. Jennie Lunger, Clinton Town, Hunterdon Co.	247 48	July 1, 1904	852 73
† 83—2251:	Mary E. Bergen, Cranbury Township, Middlesex Co.	247 48	" " "	779 84
† 84—1403:	Rachel D. Rowland, Trenton, Mercer Co.	257 40	" " "	3,603 00
† 85—1375:	Sarah Gaston, Trenton, Mercer Co.	267 32	" " "	1,023 91
† 86—1255:	Frances O. Crane, Elizabeth, Union Co.	284 64	" " "	3,984 96
† 87—1647:	Mary J. Vail, Jersey City, Hudson Co.	351 64	" " "	4,922 96
† 88—2057:	Mrs. Harriet M. Hall Ayres, Deerfield Township, Cumberland Co.	247 48	Oct. 1, 1904	3,402 85
† 89— 95:	Lue J. Mershon, Franklin Township, Gloucester Co.	247 48	" " "	3,402 85
† 90—2071:	C. Josephine Sliker, Phillipsburg, Warren Co.	247 48	" " "	3,402 85
† 91—2304:	Harriet P. Boyle, Bernards Township, Somerset Co.....	247 48	" " "	3,402 85
† 92— 474:	Emma A. Issler, Newark, Essex Co.	351 44	Jan. 1, 1905	4,260 57
† 93— 675:	Mary E. Ward, Newark, Essex Co.	496 00	" " "	6,682 50
† 94— 784:	Irene A. Brockway, West Hoboken, Hudson Co.	353 40	" " "	4,770 90
† 95— 582:	Lizzie M. Bingham, Newark, Essex Co.	410 84	Apr. 1, 1906	5,443 63
† 96—1144:	Metta Schuyler, Paterson, Passaic Co.	272 24	" " "	3,607 18
† 97—2050:	Peter M. Mechling, Union Township, Hunterdon Co.	247 48	" " "	21 69
† 98—1433:	Mrs. Kate S. Durrle, Jersey City, Hudson Co.	594 00	July 1, 1905	1,413 11
† 99—3333:	Mrs. Mary M. P. Fritz, Lebanon Township, Hunterdon Co.	247 48	" " "	2,510 05
†1000—2969:	Abraham Leach, Pequannock Township, Morris Co.....	247 48	" " "	179 43
†101—2719:	Sarah Cullum, Jersey City, Hudson Co.	486 08	Oct. 1, 1905	6,184 77
†102— 56:	Olive M. Ewing, Long Branch, Monmouth Co.	396 00	July 1, 1905	5,148 00
†103—2310:	Sarah M. Cooke, Rockaway Township, Morris Co.....	247 48	" " "	3,217 24
†104—2189:	R. Anna Baird, Bloomfield, Essex Co.	272 24	" " "	1,225 08
***†105— 865:	Mrs. Emma P. Stavers, Camden City, Camden Co.....	263 32	" " "	***
†106—1204:	William J. Rogers, Paterson, Passaic Co.	594 00	" " "	7,722 00
†107—2349:	Elizabeth L. Heward, New Brunswick, Middlesex Co.....	351 44	Oct. 1, 1905	4,236 85
†108—1946:	Emma L. Lefman, Hoboken, Hudson Co.	398 00	" " "	1,431 15
†109—1049:	Agnes E. Pelser, Paterson, Passaic Co.	496 00	" " "	6,311 25
†110—3024:	Cunningham Harris, New Hanover Township, Burlington Co.	247 48	Jan. 1, 1906	3,093 50
†111— 103:	Sarah E. Ayars, Alloway Township, Salem Co.....	247 48	" " "	3,093 50
†112—1968:	Emily B. Fithian, Bridgeton, Cumberland Co.	247 48	" " "	2,616 17
†113— 111:	Mrs. Anna A. Robbins, Upper Freehold Township, Monmouth Co.	247 48	Apr. 1, 1906	3,031 63
†114— 272:	Lizzie McCaughan, Glassboro Township, Gloucester Co.....	247 48	" " "	3,031 63
†115—1953:	Charles H. Platts, Bridgeton, Cumberland Co.	496 00	" " "	968 24
†116— 746:	Flora E. Smalley, Newark, Essex Co.	341 52	" " "	4,183 62
†117—2703:	Mrs. Mary Louise Keating, Jersey City, Hudson Co.....	380 16	" " "	497 86
†118—2581:	Jeremiah Fruttchey, North Bergen Township, Hudson Co.....	371 24	" " "	1,057 63

*Deceased.

**Deceased before deficit to Fund was paid.

***Deceased before annuity began to accrue.

†Granted under Act prior to 1906.

‡Balance due estate of deceased annuitant.

COMMISSIONER OF EDUCATION.

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Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1918.
†119—2163:	Rae A. Hinchman, East Greenwich Township, Gloucester Co.	\$247 48	July 1, 1906	\$2,969 76
†120— 67:	Annie Bradway, Pilesgrove Township, Salem Co.....	247 48	" " "	2,969 76
†121—1050:	Frances A. Gilbert, Paterson, Passaic Co.	445 48	" " "	5,345 76
†122— 425:	Eliza A. Brookfield, Newark, Essex Co.	383 60	" " "	4,603 20
†123— 902:	Jennie H. James, Camden City, Camden Co.	273 24	" " "	3,278 88
†124— 740:	Anna A. Baldwin, Newark, Essex Co.	321 76	" " "	3,410 20
†125— 115:	Augustus M. T. Flandreau, Farmingdale Borough, Monmouth Co.	318 76	" " "	3,825 12
‡*†126— 166:	Lucinda I. Ellis, Salem City, Salem Co.	247 48	July 1, 1906	2,049 16*
†127—2026:	Mary V. L. Hageman, South Brunswick Township, Middlesex Co.	247 48	" " "	2,969 76
†128—3915:	Susan M. Stiles, Elizabeth, Union Co.	346 48	" " "	3,132 75
†129— 911:	Martha L. Gould Williams, (Mrs.) Orange, Essex Co.....	321 76	Oct. 1, 1906	3,780 68
†130— 27:	Lizzie S. Van Kirk, Montgomery Township, Somerset Co.....	247 48	" " "	2,907 89
†131—1103:	Margaret E. Atkinson, Paterson, Passaic Co.	321 76	Jan. 1, 1907	3,700 24
†132—1061:	Mary Graham, Paterson, Passaic Co.	321 76	" " "	3,700 24
†133—3325:	Austin H. Lester, Montville Township, Morris Co.	247 48	" " "	167 96
†134— 58:	Clara F. Hancock, Long Branch, Monmouth Co.	247 48	" " "	2,846 02
††135—1302:	Emma M. Bodine, Trenton, Mercer Co.	366 28	" " "	4,212 22
††136— 427:	Virginia R. Reeve, Newark, Essex Co.	351 44	" " "	4,041 56
†137—2576:	Mrs. Sophie M. Decker, Wantage Township, Sussex Co.....	247 48	" " "	2,846 02
††138—1932:	Catherine C. Attwell, Hoboken, Hudson Co.	433 60	" " "	4,763 28
†139— 467:	Lydia W. Hand, Newark, Essex Co.	366 28	" " "	1,281 98
††140—1502:	Edward Kelly, Jersey City, Hudson Co.	594 00	" " "	3,144 61
††141—1465:	Alice M. Bellows, Jersey City, Hudson Co.	403 92	" " "	1,870 44
††142— 770:	Annie E. Curtis, Newark, Essex Co.	363 84	" " "	4,184 16
†143— 554:	Frances V. Gould, Newark, Essex Co.	363 84	" " "	4,184 16
††144— 509:	Eliza H. Pierson, Newark, Essex Co.	363 84	" " "	1,353 52
††145—2300:	Mrs. Mary L. Ellenwood, Bloomfield, Essex Co.	311 84	" " "	3,586 16
††146—2179:	Georgia K. Wright, Pennsauken Township, Camden Co.	247 48	" " "	759 63
††147—1965:	Sara B. Wilson, Bridgeton, Cumberland Co.	247 48	" " "	777 50
††148— 639:	Fannie Steele, Newark, Essex Co.	420 76	" " "	2,803 54
††149—2005:	Ella L. Powell, Beverly City, Burlington Co.	247 48	" " "	2,738 55
††150— 638:	Susie Steele, Newark, Essex Co.	574 20	" " "	1,374 11
†151— 140:	Rachel F. Scarborough, Lambertville, Hunterdon Co.....	253 92	" " "	2,920 08
††152—1543:	Nellie M. Walsh, Jersey City, Hudson Co.	356 40	" " "	4,098 60
††153— 827:	Clara A. Bamber, Camden City, Camden Co.	270 28	" " "	3,108 22
154—2093:	Mrs. Ella Hiner, Franklin Township, Hunterdon Co.	250 00	June 14, 1907	2,700 96
155—1355:	Sarah R. Wallington, Trenton, Mercer Co.	352 80	" " "	3,896 32
‡*156— 219:	Martha M. Putnam, Rahway, Union Co.	258 00	" " "	1,394 80*
157—1538:	Lizzie S. Ranken, Jersey City, Hudson Co.	633 60	" " "	124 90

*Deceased.

†Granted under Act prior to 1906.

††Granted under Act of 1906.

‡*Balance due estate of deceased annuitant.

SCHOOL REPORT.

Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1918.
158—122:	Alex P. Kerr, Lambertville, Hunterdon Co.	\$650 00	June 14, 1907	\$4,452 42
159—955:	M. Elizabeth Habberton, Orange, Essex Co.	606 00	" " "	6,706 16
†160—2528:	Amanda R. Dobbins, Northampton Township, Burlington Co..	247 48	July 1, 1907	1,707 78
161—2316:	Mary J. M. Murray, Atlantic City, Atlantic Co.	319 20	June 14, 1907	1,459 08
162—2035:	Jesse G. Grier, Pleasantville Borough, Atlantic Co.	302 40	" " "	3,339 68
163—598:	Eliza Murphy, Newark, Essex Co.	650 00	" " "	2,303 48
164—1810:	Louise Bailey, Hoboken, Hudson Co.	650 00	" " "	7,178 48
165—2090:	Isabella J. Stanger, Monroe Township, Gloucester Co.	250 00	" " "	2,764 28
166—2795:	Mary Louise Vreeland, Newark, Essex Co.	564 00	" " "	4,846 61
167—2023:	Maggie B. Ditmars, Raritan Township, Hunterdon Co.	250 00	" " "	2,760 96
168—306:	Mrs. Emma J. Ely, Camden City, Camden Co.	354 80	" " "	949 30
169—1467:	Kate Gregory, Jersey City, Hudson Co.	493 92	Sept. 20, 1907	5,323 14
170—1908:	Kate Bovington, Hoboken, Hudson Co.	538 56	Oct. 1, 1907	5,568 91
171—2166:	Georgiana Stevenson, East Orange, Essex Co.	558 00	Sept. 20, 1907	6,012 80
172—1980:	Mary E. Foster, Bridgeton, Cumberland Co.	360 08	" " "	2,880 68
173—1971:	Hannah More Riley, Bridgeton, Cumberland Co.	250 00	" " "	2,694 40
174—4045:	Elizabeth M. Schuyler, Camden City, Camden Co.	540 00	" " "	5,819 80
175—435:	Mrs. Catherine B. Cory, Newark, Essex Co.	606 00	" " "	6,531 10
176—432:	Mrs. M. Louisa Johnson, Newark, Essex Co.	458 40	" " "	4,940 40
177—410:	Mrs. Isadore M. Sherwood, Newark, Essex Co.	650 00	" " "	7,006 30
178—697:	Harriet W. Mullison, Newark, Essex Co.	424 80	" " "	4,578 29
179—780:	Robert Waters, West Hoboken, Hudson Co.	650 00	Oct. 12, 1907	2,034 11
180—1290:	Lucretia H. Sayre, Elizabeth, Union Co.	600 00	" " "	6,431 20
181—1382:	Kate Houghtaling, Trenton, Mercer Co.	480 00	" " "	2,281 25
182—3678:	Mrs. Lydia M. Hendrickson, Middletown Township, Monmouth Co.	342 00	" " "	3,666 20
183—1928:	Mrs. Sarah M. Van Den Berg, Hoboken, Hudson Co.	538 56	Nov. 1, 1907	5,746 64
184—200:	Ellen E. Niles, Plainfield, Union Co.	522 00	Dec. 13, 1907	5,506 74
185—270:	Mrs. Mary M. S. Latham, Glassboro Township, Gloucester Co..	250 00	" " "	2,637 90
186—226:	Sarah E. Beam, Newark, Essex Co.	650 00	" " "	6,857 04
187—2109:	Mary A. Dougall, Newark, Essex Co.	650 00	" " "	6,857 04
188—2424:	Jennie B. Canfield, Newark, Essex Co.	537 00	" " "	5,664 96
189—767:	Margaret A. Bogan, Newark, Essex Co.	402 00	" " "	4,240 80
190—1154:	Eunice E. Mann, Paterson, Passaic Co.	576 00	" " "	4,458 90
†††191—755:	Harriet E. Ball, Newark, Essex Co.	321 76	Jan. 1, 1908	5,257 21
††192—1291:	Susan C. Martin, Elizabeth, Union Co.	391 04	Apr. 1, 1908	2,202 78
193—55:	Phebe A. Smalley, Long Branch, Monmouth Co.	396 00	Mar. 20, 1908	4,070 88
194—1806:	Eva L. Potts, Jersey City, Hudson Co.	455 52	" " "	800 59
195—906:	Henry Boyer, Camden City, Camden Co.	462 00	" " "	4,749 36
196—1318:	Olive Green, Trenton, Mercer Co..	396 00	" " "	4,070 88

*Deceased.

†Granted under Act prior to 1906.

††Granted under Act of 1906

†††Miss Ball's annuity, No. 191, was in litigation several years; was granted March 20, 1908; by order of Court began to accrue January 1, 1902, with interest at 6 per cent.*

COMMISSIONER OF EDUCATION.

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Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1918.
197-2032:	Heman Allen Leach, Sparta Township, Sussex Co.	\$259 48	Mar. 20, 1908	\$2,667 85
198- 521:	Sarah N. Branum, Newark, Essex Co.	608 40	" " "	529 39
199-1066:	Mrs. Lucinda Fleming, Paterson, Passaic Co.	354 00	Apr. 16, 1908	1,157 84
200-1811:	Mrs. Elmira V. Christie, Hoboken, Hudson Co.	455 00	July 1, 1908	119 66
†201-2385:	Edward J. Bell, Vernon Township, Sussex Co.	247 48	" " "	2,474 80
202- 415:	Katherine Cottrell, Newark, Essex Co.	451 20	June 12, 1906	4,534 32
203- 87:	Peter Tilton, Ocean County, Superintendent	650 00	" " "	6,531 50
204-2006:	Anna Margaret Morton, Beverly City, Burlington Co.	270 00	Oct. 16, 1908	1,203 74
205- 847:	George E. Fry, Audubon Borough, Camden Co.	480 00	" " "	4,659 94
206-2254:	Silas C. Smith, Millville, Cumberland Co.	552 00	" " "	390 76
207-2174:	Mary D. Baldwin, East Orange, Essex Co.	471 00	" " "	4,572 54
208- 932:	Eva A. Joyce, Orange, Essex Co.	372 00	" " "	3,611 52
209- 573:	Sarah A. Avery, Newark, Essex Co.	453 80	" " "	4,403 44
210- 724:	Elizabeth H. Belcher, Newark, Essex Co.	650 00	" " "	6,310 28
211- 635:	Emma Finter, Newark, Essex Co.	607 80	" " "	5,900 64
212- 556:	Gertrude E. Ryer, Newark, Essex Co.	435 00	" " "	4,222 94
213- 640:	Edwin Shepard, Newark, Essex Co.	650 00	" " "	6,310 28
214- 928:	Laura M. Reed, Orange, Essex Co.	650 00	" " "	6,310 28
215-1464:	Mrs. Anna A. Brown, Jersey City, Hudson Co.	650 00	" " "	4,413 68
216-2347:	Sarah Hoagland, New Brunswick, Middlesex Co.	441 00	" " "	27 78
217-2253:	Alice L. Norris, Boonton Town, Morris Co.	393 00	" " "	3,414 28
218-1073:	Louisa E. Vanderbeek, Paterson, Passaic Co.	548 40	" " "	5,323 99
219- 186:	Mrs. Sarah S. Higgins, North Plainfield Township, Somerset Co.	267 00	" " "	2,591 98
220-2336:	Mrs. Rilla J. Brink, Beach, Sandyston Township, Sussex Co.	250 00	" " "	2,427 06
221- 193:	Lydia Haviland White, Roselle Park Borough, Union Co.	375 00	" " "	3,640 78
222-1447:	Mary A. Anness, Jersey City, Hudson Co.	650 00	Dec. 11, 1908	6,210 60
223-2608:	Nancy Jane Cone, Springfield Township, Burlington Co.	252 00	" " "	2,407 80
224- 156:	William N. Bortic, Cedar Grove Borough, Essex Co.	498 00	" " "	1,590 72
225-1119:	Anna E. Vreeland, Paterson, Passaic Co.	496 48	" " "	4,743 26
226-1419:	Thomas M. White, Trenton, Mercer Co.	650 00	" " "	6,210 60
227-1883:	Letitia E. Robinson, Hoboken, Hudson Co.	650 00	Apr. 2, 1909	6,010 72
228-2783:	Louisa Howell, Ewing Township, Mercer Co.	305 16	" " "	954 05
229- 351:	Charles P. DuBois, Fort Lee Borough, Bergen Co.	600 00	" " "	3,982 15
230-1887:	Mary L. Lawler, Hoboken, Hudson Co.	580 32	" " "	5,366 37
231-2061:	Mary Louise Mack, Phillipsburg, Warren Co.	492 00	" " "	1,664 17
232-1997:	Rose A. Stewart, Bordentown, Burlington Co.	330 00	" " "	3,051 60
233- 921:	Mary Alice Matthews, Orange, Essex Co.	381 00	" " "	3,521 56
234-2339:	Ina G. Aiken, Landis Township, Cumberland Co.	265 20	" " "	2,452 37
†235-1910:	Maria T. Hedges, Hoboken, Hudson Co.	493 00	July 1, 1909	4,437 00
236-2418:	Ida J. Bush, Newark, Essex Co.	491 04	June 11, 1909	4,445 02
237- 123:	Emma L. Babbitt, Morristown, Morris Co.	540 00	Sept. 17, 1909	4,744 11

*Deceased.

**Deceased before deficit of Fund was paid.

†Granted under Act prior to 1906.

SCHOOL REPORT.

Annuity and Membership Numbers	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1918.
238—171:	Anna F. Fogg, Salem City, Salem Co.	\$303 00	Sept. 17, 1909	\$2,662 04
239—314:	Mary M. Tomlin, Merchantville Borough, Camden Co.	402 00	" " "	3,531 80
240—417:	M. Lizzie Kerns, Newark, Essex Co.	553 20	" " "	4,860 53
241—670:	Flora I. Glover, Newark, Essex Co.	465 60	" " "	4,089 95
242—716:	Laura B. Sayre, Newark, Essex Co.	639 60	" " "	5,619 25
243—744:	Emma L. Hutchings, Newark, Essex Co.	650 00	" " "	5,710 64
244—1052:	Isabella Scott, Paterson, Passaic Co.	650 00	" " "	5,710 64
245—1052:	Anna F. M. Thorp, Paterson, Passaic Co.	650 00	" " "	2,716 75
246—1064:	Jennie H. Berden, Paterson, Passaic Co.	480 00	" " "	4,217 03
247—1058:	Mary Chiswell, Paterson, Passaic Co.	486 00	" " "	4,269 79
248—1132:	Elizabeth S. Eakins, Paterson, Passaic Co.	649 20	" " "	5,703 64
249—1141:	Hattie Franklin, Paterson, Passaic Co.	402 00	" " "	3,531 80
250—1164:	Martha Hollingsworth, Paterson, Passaic Co.	410 40	" " "	2,032 65
251—1468:	Daisy L. Kennedy, Jersey City, Hudson Co.	650 00	" " "	5,710 64
252—1469:	Emeline Hyatt, Jersey City, Hudson Co.	573 12	" " "	5,035 21
253—1492:	Georgia F. Mount, Jersey City, Hudson Co.	650 00	" " "	5,710 64
254—1905:	Marie C. Gourlie, Hoboken, Hudson Co.	650 00	" " "	3,476 53
255—1926:	Marie Howard Vose, Hoboken, Hudson Co.	580 32	" " "	5,098 47
256—1970:	Mary A. Walker, Bridgeton, Cumberland Co.	372 00	" " "	3,268 00
257—2068:	Emmel Lommasson, Phillipsburg, Warren Co.	384 00	" " "	796 25
258—2069:	Helen Gallagher, Phillipsburg, Warren Co.	384 00	Sept. 17, 1909	3,373 65
259—2085:	Mary Caffrey, Phillipsburg, Warren Co.	384 00	" " "	3,373 65
260—2117:	Mrs. Alice P. Nichols, Woodbridge, Bergen Co.	366 00	" " "	3,215 50
261—2229:	Annie E. Prichard, Commercial Township, Cumberland Co.	250 00	" " "	2,196 34
262—2348:	Mrs. Sara Johnson Price, New Brunswick, Middlesex Co.	462 00	" " "	3,473 41
263—3042:	Melina A. Bosworth, State Normal and Model Schools.	650 00	" " "	5,710 64
264—3668:	Emma Reed, Galloway Township, Atlantic Co.	313 20	" " "	2,751 55
265—3669:	Mary Berdilla Lindsay, Atlantic City, Atlantic Co.	349 80	" " "	3,073 10
266—910:	Mary Ella Swan, Orange, Essex Co.	582 00	Dec. 10, 1909	1,668 63
267—144:	Fanny V. Sargent, West New York, Hudson Co.	429 76	" " "	3,447 22
268—2593:	Mrs. Lovie Blackman, Blumsted Township, Ocean Co.	250 00	" " "	2,139 33
††269—138:	Mary N. Purcell, Lambertville, Hunterdon Co.	297 60	" " "	2,277 75
270—3237:	Annette Hanna, Trenton, Mercer Co.	400 32	" " "	3,425 32
271—1322:	Ida Herbert, Trenton, Mercer Co.	360 00	" " "	43 39
272—857:	Elizabeth Anderson, Camden City, Camden Co.	648 00	" " "	4,832 80
273—1578:	Emily L. Miegel, Jersey City, Hudson Co.	650 00	" " "	5,562 33
274—3323:	Emma Conover, Franklin Township, Somerset Co.	250 00	" " "	2,139 33
275—2465:	Tnnie M. L. Eagles, Newark, Essex Co.	457 20	" " "	3,912 45
276—737:	Mrs. Fannie W. Smith, Newark, Essex Co.	650 00	" " "	5,562 33
277—730:	M. Augusta Sweasy, Newark, Essex Co.	650 00	" " "	5,562 33

*Deceased.

**Deceased before deficit to Fund was paid.

††No. 269 resumed teaching Nov. 5, 1917, and payment of her annuity was suspended.

COMMISSIONER OF EDUCATION.

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Annulity and Membership Numbers.	Name, District and County Re- tired From.	Net Annual Value of Annuity.	Annulity Began to Accrue.	Total Rec'd to June 30, 1918.
278—548:	Sarah G. Taylor, Newark, Essex Co.	\$650 00	Dec. 10, 1909	\$1,390 48
279—734:	Margaret G. Baird, Newark, Es- sex Co.	571 20	" " "	4,837 96
280—914:	Margaret Hamilton McCullough, Orange, Essex Co.	406 80	" " "	3,481 11
281—2110:	Esther M. Lull, Waterford Town- ship, Camden Co.	250 00	" " "	2,139 33
282—5372:	Samuel Wilson, Hope Township, Warren Co.	250 00	" " "	2,139 33
283—172:	Ida H. Kirby, Salem City, Salem Co.	270 00	" " "	2,310 33
284—2453:	Laura B. Conrow, Long Branch, Monmouth Co.	393 00	" " "	3,363 13
285—1888:	Jean Livingston, Hoboken, Hud- son Co.	580 33	" " "	1,540 26
286—232:	A. H. Skinner, Randolph Town- ship, Morris Co.	287 40	" " "	1,398 26
287—350:	James A. Coe, Wood Ridge, Ber- gen Co.	600 00	" " "	5,135 50
288—4766:	Anna L. Holcomb, North Plain- field Borough, Somerset Co.	426 00	" " "	2,442 25
289—2446:	Mrs. Annie R. Noltemeyer, Pas- saic City, Passaic Co.	480 00	Mar. 18, 1910	3,977 33
290—1089:	Maria Sipp, Paterson, Passaic Co.	553 80	" " "	4,588 84
291—1075:	Mary L. Warren, Paterson, Pas- saic Co.	508 20	" " "	3,448 70
292—2923:	Mary Louisa Brokaw, Rahway, Union Co.	250 00	" " "	2,071 53
293—2022:	Eleanor Compton, Millstone Bor- ough, Somerset Co.	258 60	" " "	2,142 79
294—2014:	Augusta W. Wood, Mountainside Borough, Union Co.	324 00	" " "	2,684 70
295—5963:	Martha L. Webb, Newark, Essex Co.	451 08	" " "	3,737 70
296—647:	Mary Miranda Parker, Newark, Essex Co.	459 36	" " "	1,916 93
297—2532:	Celia H. Bluste, Northampton Township, Burlington Co.	250 00	" " "	2,071 53
298—4201:	Thomas Romans, Manchester Township, Ocean Co.	250 00	" " "	2,071 53
299—3492:	George A. Atwater, Bayonne, Hudson Co.	650 00	" " "	5,385 97
300—1034:	Ebenezer C. Earl, Bayonne, Hud- son Co.	650 00	" " "	5,385 97
301—6754:	Peter Garabrant, Mendham Bor- ough, Morris Co.	402 00	" " "	2,983 47
302—2012:	Franklin A. Stryker, Bridgewater Township, Somerset Co.	336 00	" " "	2,784 13
303—1000:	Philip G. Vroom, Bayonne, Hud- son Co.	650 00	" " "	1,019 66
304—1338:	Mrs. Melvina Mitchell, Trenton, Mercer Co.	556 80	" " "	2,933 73
305—2113:	Harriet Katherine Ayres, Rock- away Township, Morris Co.	255 00	June 10, 1910	2,054 01
306—3304:	Anna D. Clark, Long Branch, Monmouth Co.	418 20	" " "	3,360 54
307—329:	Frances Julia Warner, Summit, Union Co.	588 00	" " "	4,736 00
308—1386:	Mary V. Keller, Trenton, Mercer Co.	393 16	" " "	3,168 88
309—3977:	Hanna F. Dilks, Lawrence Town- ship, Cumberland Co.	250 00	" " "	2,013 74
310—2873:	Kate McLaughlin, New Bruns- wick, Middlesex Co.	562 20	July 1, 1910	4,497 60
311—2582:	Frances M. Cosine, Wallington Borough, Bergen Co.	283 00	Sept. 23, 1910	2,237 58
312—3283:	Mrs. Mary J. Mitchell, Beverly Township, Burlington Co.	264 00	" " "	2,051 02
313—3523:	Anna Farrell, Camden City, Cam- den Co.	650 00	" " "	5,049 86
314—836:	Edith G. Heaney, Camden City, Camden Co.	540 00	" " "	4,195 27
315—848:	Florence Hughes, Camden City, Camden Co.	650 00	" " "	5,049 86
316—859:	Isabella Mayberry, Camden City, Camden Co.	396 00	" " "	3,076 53
317—4212:	Lillie H. Spence, Bridgeton, Cumberland Co.	279 00	" " "	2,167 56
318—1964:	Rie M. Whitaker, Bridgeton, Cumberland Co.	408 00	" " "	3,169 76

*Deceased.

SCHOOL REPORT.

Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1913.
319— 35:	Mary H. Davis, Hopewell Township, Cumberland Co.	\$250 00	Sept. 23, 1910	\$1,942 26
320—2929:	Margaret Anna Lutz, Newark, Essex Co.	536 40	" " "	4,167 30
321— 681:	Mary A. O'Rourke, Newark, Essex Co.	468 96	" " "	1,603 77
322— 641:	Kate Roche, Newark, Essex Co.	537 84	" " "	4,192 97
323— 292:	Neillie A. Wilkes, Montclair, Essex Co.	468 00	" " "	3,635 90
324—1448:	Judith Hollis, Holden, Jersey City, Hudson Co.	614 16	" " "	4,771 43
325—1719:	Margaret Rowlands, Jersey City, Hudson Co.	650 00	" " "	5,049 86
326—1547:	Isabella A. Scott, Jersey City, Hudson Co.	581 76	" " "	4,519 71
327—2306:	Andrew Lincoln Lyon, Manalapan Township, Monmouth Co..	250 00	" " "	1,942 26
328—2223:	Samuel D. Wiseman, Ocean Township, Monmouth Co.....	402 00	" " "	2,530 09
329—5686:	Roxie B. Southard, Upper Freehold Township, Monmouth Co..	252 00	" " "	998 87
330— 154:	Irene Thompson, Wall Township, Monmouth Co.	385 20	" " "	2,992 63
331—4304:	Mrs. Eliza Caroline Saunders, Mt. Olive Township, Morris Co.....	250 00	" " "	1,942 26
332—2217:	Mrs. Anna C. King, Dover Town, Morris Co.	309 00	" " "	573 49
333—2161:	Anson B. Cope, Stanhope Borough, Sussex Co.....	650 00	" " "	2,333 64
334—5219:	Everitt L. Layton, Vernon Township, Sussex Co.....	310 20	" " "	2,409 95
335—2441:	Annie E. Covell, Elizabeth, Union Co.	424 20	" " "	2,137 20
336— 378:	Sara Deeths, Acquackanonk Township, Passaic Co.	399 96	Dec. 20, 1910	3,011 66
337—1074:	Mary Worden, Paterson, Passaic Co.	555 00	" " "	4,179 09
338—4324:	Charlotte S. Loag, Manasquan Borough, Monmouth Co.	326 40	" " "	2,457 76
339—1530:	Sarah K. Peck, Jersey City, Hudson Co.	588 24	" " "	925 51
340—1795:	Elizabeth A. Vernon, Jersey City, Hudson Co.	650 00	" " "	1,252 31
341—1529:	Emma V. Talson, Jersey City, Hudson Co.	650 00	" " "	449 63
342— 459:	Mrs. Georgia Beers Crater, Newark, Essex Co.	650 00	" " "	4,894 43
343—4700:	Theodorus B. Hascall, Newark, Essex Co.	650 00	" " "	4,894 43
344—2765:	Marian G. Brown, Princeton Borough, Mercer Co.	306 00	" " "	2,304 15
345— 93:	B. F. Mathews, Lacey Township, Ocean Co.	270 00	" " "	1,653 20
346— 176:	Charles J. Majory, Rutherford Borough, Bergen Co.	650 00	Apr. 1, 1911	4,712 50
347—1989:	Maude S. Eckhardt, Pitman Borough, Gloucester Co.	300 00	" " "	2,175 00
348—1813:	Adelaide Diana Sherwood, Hoboken, Hudson Co.	650 00	" " "	4,640 73
349— 413:	Elizabeth W. Dougall, Newark, Essex Co.	650 00	" " "	4,712 50
350— 733:	Rebecca McClure, Newark, Essex Co.	650 00	" " "	2,969 50
351— 764:	Hattie Thompson, Newark, Essex Co.	556 20	" " "	56 53
352—1079:	Mrs. Margaret Marinus, Paterson, Passaic Co.	477 60	" " "	3,463 60
353— 192:	Esther Maria Shilton, Roselle Park Borough, Union Co.....	387 00	" " "	2,805 75
354—2196:	Mary M. Draper, Bloomfield, Essex Co.	608 40	June 9, 1911	4,293 90
355—2274:	Hannah D. Brandriff, Millville, Cumberland Co.	325 20	" " "	2,295 16
356— 949:	Fanny E. Coeyman, Orange, Essex Co.	446 40	" " "	3,150 55
357—1889:	Georgina Kellett, Hoboken, Hudson Co.	635 04	" " "	4,481 92
358—3494:	Cherrie B. Thomas, Kearny, Hudson Co.	489 00	" " "	591 62
359—2302:	William W. Case, Franklin Township, Hunterdon Co.	250 00	" " "	1,764 42

*Deceased.

COMMISSIONER OF EDUCATION.

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Annulity and Membership Numbers.	Name, District and County Re- tired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1918.
360—6861:	Nathan W. Pease, Elizabeth, Union Co.	\$650 00	June 9, 1911	\$4,587 50
361—189:	Julia Merrick, Roselle Borough, Union Co.	860 00	" " "	2,540 70
362—2129:	Maggie Vreeland, Ridge Wood Township, Bergen Co.	513 00	Sept. 15, 1911	3,483 66
363—1992:	Eliza Bloomsburg, Bordentown City, Burlington Co.	315 72	" " "	2,144 26
364—8:	Luther Corson, Medford Town- ship, Burlington Co.	650 00	" " "	4,413 99
365—850:	Hannah C. Dungan, Camden City, Camden Co.	398 40	" " "	2,705 44
366—866:	Carrie C. Messler, Camden City, Camden Co.	394 80	" " "	2,680 99
367—871:	Maria Habliston, Camden City, Camden Co.	339 76	" " "	2,646 88
368—899:	Mary Emma Young, Camden City, Camden Co.	564 00	" " "	3,829 98
369—2265:	Harriet A. Evans, Millville, Cum- berland Co.	250 00	" " "	1,697 69
370—1678:	Mary Josephine Goffe, Montclair, Essex Co.	624 00	" " "	4,373 47
371—513:	Cornelia L. Alyea, Newark, Es- sex Co.	546 24	" " "	3,709 38
372—2234:	Mary Louisa Karner, Newark, Essex Co.	518 16	" " "	3,518 70
373—2426:	Mrs. M. Augusta Gillott, Newark, Essex Co.	650 00	" " "	4,413 99
374—1430:	Mrs. Caroline Cave Shepard, Jersey City, Hudson Co.	650 00	" " "	3,631 75
375—1551:	Mrs. Luise H. Stanley, Jersey City, Hudson Co.	650 00	" " "	4,413 99
376—1612:	Marguerita De Vanny, Jersey City, Hudson Co.	641 52	" " "	4,356 40
377—1748:	Anna M. Dalton, Jersey City, Hudson Co.	650 00	" " "	3,803 15
378—2355:	Mary Elizabeth Wakeman, New Brunswick, Middlesex Co.	336 00	" " "	2,282 00
379—128:	Emma Gray, Morristown, Morris Co.	459 00	" " "	3,117 87
380—9641:	Amelia H. Hanthorn, Weymouth Township, Atlantic Co.	253 80	Dec. 8, 1911	1,227 67
381—1186:	Annie M. Broome, Paterson, Pas- saic Co.	516 76	" " "	3,391 23
382—3457:	L. May Williams, Camden City, Camden Co.	384 72	" " "	2,524 72
383—5332:	George Eldredge, Dennis Town- ship, Cape May Co.	286 20	" " "	1,878 18
384—421:	Marian D. Camden, Newark, Es- sex Co.	650 00	" " "	4,265 62
385—2926:	Eva Myer, Newark, Essex Co.	646 80	" " "	4,244 62
386—1450:	Jennie M. Levy, Jersey City, Hudson Co.	648 00	" " "	4,252 50
387—783:	Emma Neafie, West Hoboken, Hudson Co.	610 08	" " "	4,003 65
388—1344:	Sarah E. Poland, Trenton, Mer- cer Co.	546 00	" " "	3,583 12
389—2143:	Laura M. Pyott, Wall Township, Monmouth Co.	253 80	" " "	1,665 56
390—6671:	Mrs. Minerva Decker Harvey, Irvington, Essex Co.	534 00	" " "	3,504 37
391—2534:	Nettie D. Bayles, Hardyston Township, Sussex Co.	301 20	" " "	1,976 62
392—3563:	C. Alberta Underwood, Atlantic City, Atlantic Co.	558 00	" " "	3,512 02
393—1967:	Sara M. Westcott, Bridgeton, Cumberland Co.	351 00	" " "	2,209 18
394—431:	Harriet K. Jenkinson, Newark, Essex Co.	494 04	" " "	3,109 46
395—506:	Margaret D. Conover, Newark, Essex Co.	546 24	" " "	1,140 43
396—537:	Lydia A. Mills, Newark, Essex Co.	546 24	" " "	3,438 01
397—558:	Anna M. Howard, Newark, Essex Co.	572 64	" " "	1,215 92
398—668:	Sarah B. Scarlett, Newark, Essex Co.	650 00	" " "	4,091 07
399—1493:	Lillie M. Hyatt, Jersey City, Hudson Co.	650 00	" " "	4,091 07
400—1794:	Jane M. Lewis, Jersey City, Hud- son Co.	650 00	" " "	4,091 07

*Deceased.

Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1918.
401-135:	Belle Gallagher, Lambertville, Hunterdon Co.	\$354 00	Dec. 3, 1911	\$2,323 06
402-1158:	Mary Elizabeth Bentley, Paterson, Passaic Co.	540 00	" " "	3,398 73
403-4269:	Mrs. Olive H. Donnell, Paterson, Passaic Co.	361 80	" " "	2,277 15
404-2611:	Robert Carter Godfrey, Salem City, Salem Co.	352 20	" " "	2,158 67
405-3028:	Sarah De M. Runyon, Bernards Township, Somerset Co.	250 00	" " "	1,573 48
†406-3502:	John Broderick, West Milford Township, Passaic Co.	247 48	Apr. 1, 1912	1,043 90*
407-2027:	Mary J. McCurdy, Holland Township, Hunterdon Co.	250 00	Mar. 15, 1912	1,573 48
408-5339:	Minnie Scott Blakie, Mansfield Township, Burlington Co.	270 00	June 14, 1912	1,021 89
409-2266:	Mrs. Dora Tuller, Millville, Cumberland Co.	250 00	" " "	1,510 98
410-515:	Cornelia S. Coe, Newark, Essex Co.	599 04	" " "	3,620 49
411-6029:	Hannah Moore, Newark, Essex Co.	650 00	" " "	3,928 57
412-3543:	Elizabeth Ricalton, South Orange Township, Essex Co.	491 16	" " "	2,968 54
413-11472:	Anna M. Hennessy, Town of Union, Hudson Co.	396 00	" " "	2,393 40
414-57:	Esther C. Todd, Long Branch, Monmouth Co.	615 00	" " "	3,717 03
415-2443:	Sara E. Nivison, Shrewsbury Township, Monmouth Co.	390 00	" " "	2,357 14
416-907:	Agnes Riley, Camden City, Camden Co.	522 00	Sept. 20, 1912	3,015 68
417-3468:	Charles K. Middleton, Camden City, Camden Co.	650 00	" " "	3,755 16
418-2315:	Mrs. Ella S. B. Dodge, Commercial Township, Cumberland Co.	250 00	" " "	1,444 39
419-6951:	Mrs. Lura Del Mayhew, Commercial Township, Cumberland Co.	250 00	" " "	1,444 39
420-1962:	Ida Virginia Fitz Randolph, Bridgeton, Cumberland Co.	265 20	" " "	1,532 10
†421-36:	Julia M. Davis, Stow Creek Township, Cumberland Co.	247 48	Oct. 1, 1912	1,423 01
422-3503:	M. Helen DuBois, East Orange, Essex Co.	510 00	Sept. 20, 1912	2,946 35
423-6985:	Randall Spaulding, Montclair, Essex Co.	650 00	" " "	2,660 38
424-448:	Mrs. Addie Beers Whittemore, Newark, Essex Co.	617 04	" " "	3,564 88
425-511:	Henry S. Anderson, Newark, Essex Co.	650 00	" " "	3,755 16
426-753:	Elizabeth Moore, Newark, Essex Co.	528 00	" " "	3,050 34
427-772:	Jessie B. Mikels, Newark, Essex Co.	650 00	" " "	1,994 36
428-2932:	Mary A. McNeill, Newark, Essex Co.	579 84	" " "	3,349 96
429-1885:	Mary Edith Lawler, Hoboken, Hudson Co.	650 00	" " "	3,755 16
430-1918:	Mrs. Alice S. Mills, Hoboken, Hudson Co.	650 00	" " "	3,755 16
431-1425:	Cornelia M. Wigent, Jersey City, Hudson Co.	650 00	" " "	3,755 16
432-141:	Mrs. Clara Miller, Lambertville, Hunterdon Co.	357 00	" " "	2,065 80
433-7478:	Mrs. Edna A. Davis Van Pelt, Hopewell Township, Mercer Co.	294 00	" " "	1,698 49
†434-3389:	Martha E. Lewis, Trenton, Mercer Co.	401 52	Oct. 1, 1912	2,308 74
435-3305:	Lulu E. Clark, Long Branch, Monmouth Co.	441 60	Sept. 20, 1912	2,551 20
436-2214:	Thomas H. Mahany, Netcong Borough, Morris Co.	564 00	" " "	3,253 32
437-1054:	Mary E. Berger, Paterson, Passaic Co.	636 00	" " "	3,674 23
438-1065:	Sarah Johnston Van Wyck, Paterson, Passaic Co.	510 00	" " "	2,946 35
439-359:	Joel Horton, North Bergen Township, Bergen Co.	650 00	Oct. 13, 1912	2,102 09
440-2268:	Priscilla Herckner, Rutherford Borough, Bergen Co.	442 20	Nov. 8, 1912	82 10

*Deceased.

†Granted under Act prior to 1906.

COMMISSIONER OF EDUCATION.

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Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1918.
441— 6:	Sarah E. Wilson, Voorhees Township, Camden Co.	\$351 00	Dec. 20, 1912	\$1,940 99
442— 450:	Jane E. Allen, Newark, Essex Co.	650 09	" " "	3,594 42
443— 577:	Ann Eliza Sayre, Newark, Essex Co.	650 00	" " "	3,594 42
444— 762:	S. Eveline Durand, Newark, Essex Co.	617 04	" " "	3,412 16
445— 930:	Ida M. Quinby, Orange, Essex Co.	445 20	" " "	2,461 90
446—1546:	Mary E. Benton, Jersey City, Hudson Co.	650 00	" " "	3,594 42
447— 786:	Mame E. Yates, West Hoboken, Hudson Co.	650 00	" " "	3,594 42
448—3836:	Chrissie Bunn, Union Township, Hunterdon Co.	259 20	" " "	1,433 34
449—1247:	Ella Schermerhorn, Trenton, Mercer Co.	650 00	" " "	3,594 42
450—9751:	Elizabeth Merrick, Trenton, Mercer Co.	415 20	" " "	2,296 01
451—3666:	Clara E. Ball, Hanover Township, Morris Co.	307 20	" " "	1,698 78
452—5191:	Joseph R. Steelman, Stafford Township, Ocean Co.	432 00	" " "	2,388 91
†††453—2042:	Richard Martin Creed, Woodland Township, Burlington Co.	247 48	Oct. 1, 1903	3,402 85
454—5509:	Kathryn Jay, Atlantic City, Atlantic Co.	441 60	Apr. 4, 1913	2,313 50
455—2148:	S. Fanny Haines, Medford Township, Burlington Co.	263 64	" " "	1,381 21
456—2899:	George E. Megargee, Chester Township, Burlington Co.	650 00	" " "	2,644 47
457— 845:	Frances J. Messler, Camden City, Camden Co.	421 92	" " "	2,210 44
458— 526:	David Maclure, Newark, Essex Co.	650 00	" " "	3,405 35
†459— 532:	Emma J. Smith, Newark, Essex Co.	594 00	July 1, 1913	2,970 00
460— 771:	Juliet Dettmer, Newark, Essex Co.	624 96	Apr. 4, 1913	3,274 17
461—1756:	Agnes Warwick, Jersey City, Hudson Co.	650 00	" " "	3,405 35
462—2307:	Anna H. Park, Tewksbury Township, Hunterdon Co.	250 00	" " "	1,309 75
463—1047:	Mrs. Caroline E. Thomas, Paterson, Passaic Co.	601 96	" " "	2,533 14
464—1118:	Anna B. Poole, Paterson, Passaic Co.	574 20	" " "	3,008 24
465—1172:	William H. Barry, Paterson, Passaic Co.	650 00	" " "	3,405 35
466— 196:	Louise B. Runyon, Plainfield, Union Co.	459 00	" " "	2,404 70
467—3544:	Jeremiah D. Gray, Lopatcong Township, Warren Co.	378 00	" " "	1,980 34
468—3651:	Hon. Charles J. Baxter, former State Superintendent of Public Instruction	650 00	June 13, 1913	1,655 35
469— 399:	Sara E. Merry, Newark, Essex Co.	629 64	" " "	3,177 60
470—1812:	Laura Herbert, Hoboken, Hudson Co.	650 00	" " "	3,280 35
471—1945:	Clara V. Havens, Hoboken, Hudson Co.	650 00	" " "	1,014 25
472—1599:	Hannah E. Eltringham, Jersey City, Hudson Co.	650 00	" " "	3,280 35
473—2674:	William B. Du Rie, Jersey City, Hudson Co.	650 00	" " "	1,683 83
474—1364:	Sallie Callis, Trenton, Mercer Co.	504 00	" " "	2,543 53
475—1369:	Harriet S. Dickinson, Trenton, Mercer Co.	578 40	" " "	2,919 01
476—1387:	Joanna M. Krumholz, Trenton, Mercer Co.	486 72	" " "	2,456 33
477—1421:	Lewis C. Wooley, Trenton, Mercer Co.	650 00	" " "	1,251 51
†478—3324:	Anne Shotwell, Linden Township, Union Co.	321 72	July 1, 1913	1,608 60

*Deceased.

†Granted under Act prior to 1906.

†††Mr. Creed's annuity, No. 453, was granted February 21, 1913, but dates from October 1, 1903, without interest. Mr. Creed had made application prior to October 1, 1903; his application was laid on the table; in 1913 the Board, after careful investigation, decided that Mr. Creed was permanently incapacitated when he applied prior to October 1, 1903, and therefore granted annuity to accrue from that date.

SCHOOL REPORT.

Annuity and Membership Numbers.	Name, District and County Re- tired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1913.
479—2152:	Mrs. Mary A. Heisler, Burling- ton Co.	\$288 00	Sept. 26, 1913	\$1,371 12
480—2153:	Annie Lockhart Phillips, Flor- ence Township, Burlington Co.	300 00	" " "	1,190 53
481— 852:	Bessie Laverty, Camden City, Camden Co.	450 00	" " "	2,142 39
482— 890:	Clara E. McCully, Camden City, Camden Co.	650 00	" " "	3,094 53
483— 894:	Alice C. Wentz, Camden City, Camden Co.	462 00	" " "	2,199 52
484—2449:	Mary Updyke Davis, Camden City, Camden Co.	456 00	" " "	2,170 95
485—2769:	Harriet A. LaPierre, Camden City, Camden Co.	650 00	" " "	3,094 56
486—2825:	Susanna Woolman, Camden City, Camden Co.	454 80	" " "	2,165 24
487—3118:	Elizabeth Van Kirk, Camden City, Camden Co.	504 00	" " "	2,399 47
488—3249:	Lizzie H. Kaighn, Camden City, Camden Co.	462 00	" " "	564 42
489—5614:	Mary Weir Davis, Hopewell Township, Cumberland Co.	275 40	" " "	1,311 12
490—4351:	Fannie D. Brineshults, Lawrence Township, Cumberland Co.	276 60	" " "	1,316 85
491—7827:	Mrs. Ann Eliza Cattell Maskell, Maurice River Township, Cum- berland Co.	250 00	" " "	9 59
492—2282:	Sallie Mulford, Millville, Cumber- land Co.	354 00	" " "	1,685 34
493— 453:	Annie C. Day, Newark, Essex Co.	650 00	" " "	3,094 56
494—8004:	Mrs. Chloe L. Day Smith, New- ary, Essex Co.	650 00	" " "	3,094 56
495—1488:	Mrs. Annie L. Bubler, Jersey City, Hudson Co.	650 00	" " "	3,094 56
496—1734:	Miss A. Frank C. Smith, Jersey City, Hudson Co.	650 00	" " "	3,094 56
497—1766:	Mrs. Kate E. Foster, Jersey City, Hudson Co.	650 00	" " "	3,094 56
498—3646:	Emma M. Bolling, Jersey City, Hudson Co.	650 00	" " "	3,094 56
499— 15:	Cornelia V. Stonaker, Princeton Borough, Mercer Co.	512 40	" " "	2,439 46
†500—1326:	Spencer P. Irvin, Trenton, Mer- cer Co.	594 00	Oct. 1, 1913	2,821 50
501—1399:	Mrs. Rebecca C. R. O'Hara, Trenton, Mercer Co.	504 00	Sept. 26, 1913	2,399 47
502—3475:	Mary E. Coffin, Asbury Park, Monmouth Co.	650 00	" " "	1,233 56
503— 107:	Sara R. Everett, Eatontown Township, Monmouth Co.	333 00	" " "	1,585 36
504—2029:	Martha Kase, Mt. Olive Town- ship, Morris Co.	300 00	" " "	1,428 26
505—1121:	Margaret A. Wright, Paterson, Passaic Co.	540 00	" " "	2,064 83
506—2095:	Daniel A. Gormley, Lafayette Township, Sussex Co.	250 00	" " "	1,190 21
507—4307:	Bethuel Farrand Holly, Frank- ford Township, Sussex Co.	277 80	" " "	1,322 57
508—1294:	Bertha C. Mackey, Elizabeth, Union Co.	600 00	" " "	2,856 52
509—2543:	Margaret A. Clark, Elizabeth, Union Co.	492 00	" " "	844 36
510—3041:	Sarah Y. Ely, State Model School, Trenton	650 00	" " "	3,094 56
511—3045:	Louise Struble, State Model School, Trenton	528 00	" " "	2,513 73
512—5886:	Vernon L. Davey, East Orange, Essex Co.	650 00	Oct. 17, 1913	782 47
513—1490:	Elva A. Betts, Jersey City, Hud- son Co.	650 00	" " "	226 35
514—5318:	Frederic S. Moore, Deerfield Township, Cumberland Co.	318 60	Dec. 12, 1913	1,450 23
515—4318:	George C. Munyan, Fairfield Township, Cumberland Co.	250 00	" " "	1,138 01
516— 92:	Phebe Smith Miller, Clayton Bor- ough, Gloucester Co.	288 00	" " "	1,310 99
517— 585:	Charles H. Gleason, Sr., Newark, Essex Co.	650 00	" " "	2,953 82
518—1028:	Elizabeth F. Allan, Bayonne, Hudson Co.	650 00	" " "	2,953 82

*Deceased.

**Deceased before deficit to Fund was paid.

†Granted under Act prior to 1906.

COMMISSIONER OF EDUCATION

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Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1918.
519—1816:	Helen Herbert, Hoboken, Hudson Co.	\$650 00	Oct. 17, 1913	\$2,958 82
520—1579:	Katherine T. McDonnell, Jersey City, Hudson Co.	650 00	" " "	2,958 82
521—6798:	Emma A. Holloway, Raritan Township, Monmouth Co.	309 00	" " "	1,406 58
522— 339:	Lillian A. Rusling, Passaic City, Passaic Co.	492 00	" " "	2,239 61
††523—2987:	Margaret C. J. Titus, Frankford Township, Sussex Co.	313 80	" " "	99 07
524—9644:	Eliza Elzira Snook, Montague Township, Sussex Co.	250 00	" " "	1,138 01
525—1257:	William D. Heyer, Elizabeth, Union Co.	650 00	" " "	1,397 91
526—2341:	Laura V. Fortiner, Collingswood Borough, Camden Co.	354 00	Mar. 20, 1914	1,515 16
527— 454:	Margaret A. Day, Newark, Essex Co.	650 00	" " "	2,782 08
528—1531:	Sara B. Biddick, Jersey City, Hudson Co.	650 00	" " "	851 66
529—1629:	Mary B. Anderson, Jersey City, Hudson Co.	650 00	" " "	2,782 08
530—1712:	Kate Cringle, Jersey City, Hudson Co.	650 00	" " "	2,782 08
531—1797:	Jennie M. Fields, Jersey City, Hudson Co.	650 00	" " "	2,782 08
532—1199:	Mary J. Maloney, Paterson, Passaic Co.	547 20	" " "	2,342 08
533—2320:	Susie P. Struthers, Landis Township, Cumberland Co.	472 20	June 12, 1914	1,911 82
534— 449:	Nellie B. Thompson, Newark, Essex Co.	650 00	" " "	2,632 04
535— 728:	Caroline D. Schleck, Newark, Essex Co.	648 00	" " "	2,623 86
536—1440:	Lydia K. Ennis, Jersey City, Hudson Co.	650 00	" " "	2,632 04
537—1609:	Abner D. Joslin, Jersey City, Hudson Co.	650 00	" " "	2,632 04
538—1713:	Jane V. Horsley, Jersey City, Hudson Co.	650 00	" " "	2,632 04
539—1718:	Emma L. Ballou, Jersey City, Hudson Co.	650 00	" " "	2,632 04
540—6413:	Ella T. E. Schomp, Clinton Town, Hunterdon Co.	376 20	" " "	1,523 34
541—1348:	Maria M. Sherrad, Trenton, Mercer Co.	506 08	" " "	2,045 16
542—3331:	Lottie C. Slocum, Spring Lake Borough, Monmouth Co.	396 00	" " "	1,603 44
543—1184:	Albert F. Chadwick, Paterson, Passaic Co.	650 00	" " "	778 16
544—1226:	Carrie D. Bristol, Paterson, Passaic Co.	510 00	" " "	2,065 20
545—2303:	Mary L. H. Smick, Quinton Township, Salem Co.	250 00	" " "	1,012 24
546—1240:	Jennie S. Johnson, Elizabeth, Union Co.	650 00	" " "	2,632 04
547— 203:	Alice W. Lansing, Plainfield, Union Co.	567 00	" " "	2,295 90
548—4330:	Grace F. Harned, Westfield Town, Union Co.	480 00	" " "	1,943 58
549—3036:	Mary C. Field, Trenton State Normal and Model Schools.	650 00	" " "	2,632 04
550— 308:	Mrs. Abbie DuBois, Camden City, Camden Co.	468 00	Sept. 18, 1914	1,770 38
551— 828:	Laura M. Flithian, Camden City, Camden Co.	438 00	" " "	1,656 90
552— 863:	Hattie A. Lewis, Camden City, Camden Co.	438 00	" " "	123 90
553— 895:	Mary N. Chambers, Camden City, Camden Co.	477 00	" " "	1,804 42
554— 909:	Elizabeth F. Morris, Camden City, Camden Co.	468 00	" " "	1,770 38
555—3271:	Arabella Strang, Camden City, Camden Co.	650 00	" " "	2,458 86
556— 403:	Elizabeth Leyden, Newark, Essex Co.	650 00	" " "	2,458 86
557— 773:	Anna L. Garabrant, Newark, Essex Co.	650 00	" " "	2,458 86
558—2944:	Amy Simpson, Newark, Essex Co.	650 00	" " "	2,458 86

*Deceased.

††No. 523 resumed teaching April 6, 1914, and payment of her annuity was suspended.

SCHOOL REPORT.

Annulity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annulity.	Annulity Began to Accrue.	Total Rec'd to June 30, 1918.
559-1592:	Grace Van Gelder, Jersey City, Hudson Co.	\$650 00	Sept. 18, 1914	\$2,458 86
560- 969:	Marie Lutkemann, Town of Union, Hudson Co.	650 00	" " "	2,458 86
561-1377:	Sara E. Hagaman, Trenton, Mercer Co.	565 20	" " "	2,138 07
562-4350:	Everett C. Brainard, Denville, Morris Co.	370 20	" " "	1,159 26
563- 129:	Hattie C. Youngblood, Morristown, Morris Co.	480 00	" " "	1,815 78
564-6751:	Ella C. Bloom, Passaic Township, Morris Co.	414 00	" " "	1,566 10
565-2097:	Mary M. Vreeland, Cranford Township, Union Co.	582 00	" " "	2,201 62
566-1250:	Frances T. Mackey, Elizabeth, Union Co.	498 00	" " "	1,883 86
567-1767:	Mary H. von Gottschalck, Jersey City, Hudson Co.	650 00	Oct. 10, 1914	759 84
568-4038:	Mrs. Rose A. Grady, Jersey City, Hudson Co.	596 16	" " "	2,220 36
569-5522:	Florence Agnes Nelson, Atlantic City, Atlantic Co.	650 00	Dec. 17, 1914	2,299 92
570- 742:	Laurena Dey, Newark, Essex Co.	650 00	" " "	2,299 92
571-4681:	Ida Louise Wilcox, Montclair Town, Essex Co.	267 28	" " "	54 97
572- 967:	James W. Phelan, Town of Union, Hudson Co.	650 00	" " "	837 42
573-4023:	Elizabeth A. Brown, Trenton, Mercer Co.	547 20	" " "	1,936 18
574-2350:	Laura N. Wilson, New Brunswick, Middlesex Co.	447 00	" " "	1,581 63
575-1173:	Margaret C. Houston, Paterson, Passaic Co.	600 00	" " "	2,123 00
576-7065:	Mrs. Harriet Evans, State Home for Girls, Trenton.	250 00	" " "	884 57
577-2947:	Helen Marie Bleakly, Camden City, Camden Co.	600 00	Mar. 19, 1915	1,969 71
578-2052:	Sarah H. Thompson, Oaklyn Borough, Camden Co.	430 00	" " "	1,412 28
579- 650:	Abbie J. Hoppaugh, Newark, Essex Co.	650 00	" " "	2,133 86
580- 738:	Joseph L. Terwilliger, Newark, Essex Co.	650 00	" " "	2,133 86
†581-1933:	Nellie P. McCain, Hoboken, Hudson Co.	583 28	Apr. 1, 1915	1,896 66
582-1756:	Clara A. Pendleton, Jersey City, Hudson Co.	650 00	Mar. 19, 1915	2,133 86
583- 24:	Stephen Higginson, Raritan Township, Monmouth Co.	351 00	" " "	1,152 28
†584- 118:	Edgar W. Polhemus, Dover Township, Ocean Co.	247 48	Apr. 1, 1915	894 31
585-2314:	Elizabeth English, Atlantic City, Atlantic Co.	290 40	June 11, 1915	896 30
586-6931:	Thomas W. Hartman, Pleasantville City, Atlantic Co.	650 00	" " "	358 82
587-2909:	Mrs. Ellen M. M. Aitken Chester Township, Burlington Co.	525 60	" " "	1,604 16
588-2016:	Mrs. Laura A. McKaig, Sea Isle City, Cape May Co.	387 00	" " "	1,181 14
589-5321:	George W. Bowman, Downe Township, Cumberland Co.	570 00	" " "	1,739 65
590- 551:	Anna C. Dunnell, Newark, Essex Co.	650 00	" " "	1,983 82
591- 927:	Emma J. Baker, Orange, Essex Co.	474 52	" " "	1,448 36
†592-1886:	Clara M. Ward, Hoboken, Hudson Co.	585 68	July 1, 1915	1,757 04
593-1911:	Sophie G. Schrader, Hoboken, Hudson Co.	650 00	June 11, 1915	1,983 82
594- 259:	Edward Kernan, Weehawkn, Hudson Co.	650 00	" " "	1,983 82
595-6787:	Mrs. Nellie Heisley, Red Bank, Monmouth Co.	445 20	" " "	212 47
596- 323:	David Davis, Shrewsbury Township, Monmouth Co.	550 92	" " "	1,681 43
597-5190:	Henry W. Sterner, Union Township, Ocean Co.	540 00	" " "	1,648 10
598-1273:	Louise E. Braun, Elizabeth, Union Co.	650 00	" " "	1,983 82
599-2051:	Anna Hudson, Galloway Township, Atlantic Co.	327 40	Sept. 17, 1915	911 99

*Deceased.

†Granted under Act prior to 1906.

COMMISSIONER OF EDUCATION.

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Annuity and Membership Numbers.	Name, District and County Re- tired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1918.
600—312:	Mary Hawkins Locke, Camden City, Camden Co.....	\$474 00	Sept. 17, 1915	\$1,320 37
601—826:	Clara R. Titus, Camden City, Camden Co.	650 00	" " "	1,810 64
602—851:	Laura A. Pike, Camden City, Camden Co.	474 00	" " "	1,320 34
603—869:	Alfarata B. Sharp, Camden City, Camden Co.	441 00	" " "	1,288 45
604—3472:	Clara Louise Mulliner, Camden City, Camden Co.....	600 00	" " "	1,422 28
605—5590:	Lillian M. Thompson, Camden City, Camden Co.....	474 00	" " "	1,320 37
606—820:	Mary T. Whittington, Gloucester City, Camden Co.....	567 00	" " "	1,579 43
607—2379:	Charles Tomlin, Middle Township, Cape May Co.....	378 00	" " "	1,052 95
608—512:	Fanny Lee Buchanan, Newark, Essex Co.	650 00	" " "	1,810 64
†609—627:	Helen Herbst, Newark, Essex Co.	594 00	Oct. 1, 1915	1,633 50
610—2164:	John H. Tharp, Mantau Town- ship, Gloucester Co.....	448 96	Sept. 17, 1915	1,250 63
611—276:	Lydia Gibson Pierson, Wood- bury, Gloucester Co.	321 00	" " "	894 17
612—922:	Henry E. Harris, Bayonne, Hud- son Co.	650 00	" " "	1,810 64
613—1521:	Edith L. Childs, Jersey City, Hudson Co.	650 00	" " "	1,810 64
614—1564:	Alida Outwater, Jersey City, Hudson Co.	650 00	" " "	1,810 64
615—1570:	Mrs. Susan Clarke, Marvin, Jer- sey City, Hudson Co.....	650 00	" " "	1,810 64
616—1697:	Nellie C. Dutch, Jersey City, Hudson Co.	650 00	" " "	1,810 64
617—1698:	Ida M. Falkenbury, Jersey City, Hudson Co.	650 00	" " "	1,810 64
618—1701:	Harriet A. Ward, Jersey City, Hudson Co.	650 00	" " "	1,810 64
619—1714:	Eva Hilton Lott, Jersey City, Hudson Co.	650 00	" " "	1,810 64
620—3128:	Fannie Powell, Hamilton Town- ship, Mercer Co.....	373 80	" " "	1,041 26
621—3627:	Frederic W. Eveleth, Jersey City, Hudson Co.	650 00	" " "	1,810 64
622—3673:	Langdon S. Thompson, Jersey City, Hudson Co.....	650 00	" " "	1,810 64
623—5774:	Dena Clayton, Marlboro Town- ship, Monmouth Co.	318 00	" " "	885 83
624—130:	Mary L. Lindabery, Wharton Borough, Morris Co.....	360 00	" " "	1,002 81
625—2242:	Addie Mary Reilly, Wharton Bor- ough, Morris Co.	390 00	" " "	1,066 38
626—86:	Winfield Irons, Dover Township, Ocean Co.	315 00	" " "	877 46
627—3508:	Emma C. Spencer, Passaic City, Passaic Co.	498 00	" " "	1,387 23
628—2395:	Myra E. Drake, Hardyston Township, Sussex Co.....	312 00	" " "	869 10
629—208:	Louise Wood (Mrs. Harmon Louise Wood Spear), Plainfield, Union Co.	553 00	" " "	1,554 96
630—211:	Millicent E. Humpston, Plain- field, Union Co.....	650 00	" " "	1,810 64
631—237:	James E. Demarest, New Bar- badoes Township, Bergen Co....	650 00	Dec. 10, 1915	1,662 33
632—3116:	Lizzie H. Lummis, Camden City, Camden Co.	444 00	" " "	1,125 53
633—4671:	Maria Dupont Whitaker, Wins- low Township, Camden Co.....	250 00	" " "	639 26
634—544:	Mary R. Bird, Newark, Essex Co.	650 00	" " "	1,523 02
635—644:	Evelyn S. Symons, Newark, Es- sex Co.	650 00	" " "	418 76
636—6633:	Cornelius S. Thatcher, Newark, Essex Co.	650 00	" " "	1,662 33
637—25:	Theodore Fleetwood, Westville Borough, Gloucester Co.....	650 00	" " "	1,662 33
638—1001:	Hannah E. Wilson, Bayonne, Hudson Co.	650 00	" " "	1,662 33
639—1941:	Sarah H. Mitchell, Hoboken, Hud- son Co.	650 00	" " "	1,662 33

*Deceased.

†Granted under Act prior to 1906.

SCHOOL REPORT.

Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1918.
640—1429:	Teresa Coppinger, Jersey City, Hudson Co.	\$650 00	Dec. 10, 1915	\$1,662 38
641—1491:	Alice P. M. Ashhurst, Jersey City, Hudson Co.	650 00	" " "	1,662 38
642—1510:	Katharine A. Young, Jersey City, Hudson Co.	650 00	" " "	1,662 38
643—1528:	Julia A. Minihan, Jersey City, Hudson Co.	650 00	" " "	1,662 38
644—1678:	Mrs. Martha F. Coleman, Jersey City, Hudson Co.	650 00	" " "	1,662 38
645—1300:	Elizabeth R. Blair, Trenton, Mercer Co.	650 00	" " "	1,263 88
646—2918:	Mrs. Anna Williams, North Brunswick Township, Middlesex Co.	324 00	" " "	828 62
647— 108:	Albert Robinson, Upper Freehold Township, Monmouth Co.	600 00	" " "	1,534 50
648— 109:	Ella M. Newell, Upper Freehold Township, Monmouth Co.	300 00	Dec. 10, 1915	767 24
649— 110:	Mrs. Elizabeth P. Ford, Upper Freehold Township, Monmouth Co.	300 00	" " "	767 24
650—4558:	Stacy B. Emmons, Roxbury Township, Morris Co.	477 00	" " "	1,219.92
651—1102:	Katharine C. Meegan, Paterson, Passaic Co.	650 00	" " "	1,662 38
652—5859:	William J. Ayres, Franklin Township, Somerset Co.	273 60	" " "	699 72
653—2245:	Chauncey D. Greene, Harrington Township, Bergen Co.	522 00	Mar. 17, 1916	960 69
654— 743:	Isabel Hampton, Newark, Essex Co.	650 00	" " "	1,487 42
655— 754:	E. Jane Peer, Newark, Essex Co.	650 00	" " "	1,487 42
656—3424:	Lucasta C. Baldwin, Newark, Essex Co.	650 00	" " "	1,487 42
†657—1914:	Mary C. Applegate, Hoboken, Hudson Co.	591 00	Apr. 1, 1916	1,329 75
†658—1931:	Angelina Burnett, Hoboken, Hudson Co.	586 88	" " "	1,320 48
†659—1939:	Isabel E. Jackson, Hoboken, Hudson Co.	586 88	" " "	1,320 48
660—1672:	Isabella Westcott, Jersey City, Hudson Co.	650 00	Mar. 17, 1916	154 86
661—1800:	Barbara McGowan, Jersey City, Hudson Co.	650 00	" " "	282 76
†662—1057:	Martha T. Johnston, Paterson, Passaic Co.	594 00	Apr. 1, 1916	1,336 50
663— 794:	Alice M. Fletcher, Newark, Essex Co.	650 00	June 9, 1916	1,337 38
664—3100:	Annie Shreve Burgyes, Newark, Essex Co.	650 00	" " "	1,337 38
665— 961:	Jennie S. Currey, Town of Union, Hudson Co.	650 00	" " "	62 30
666—7305:	Mary Phillips (Mrs. Louis Labaw), Hopewell Township, Mercer Co.	430 80	" " "	886 38
667—3983:	Mary Elizabeth Vaughan, Perth Amboy, Middlesex Co.	650 00	" " "	199 88
668—7497:	Carrie O. Jacques, Roosevelt Borough, Middlesex Co.	393 00	" " "	808 59
669—1120:	Adeline E. Smith, Paterson, Passaic Co.	612 00	" " "	1,259 19
670— 159:	Mrs. M. Virginia Bronson, Salem City, Salem Co.	300 00	" " "	617 24
671—2328:	Minnie L. Taylor, Summit City, Union Co.	650 00	" " "	1,337 38
672—2013:	Elizabeth Stryker, Westfield Town, Union Co.	580 20	" " "	1,193 76
673— 889:	Annie L. Morton, Camden City, Camden Co.	450 03	Sept. 15, 1916	805 98
674— 327:	Emma W. Middleton, Haddonfield Borough, Camden Co.	432 00	" " "	773 74
675— 300:	Eliza Howe Gilbert, Montclair Town, Essex Co.	650 00	" " "	1,164 20
676— 469:	Emma F. Woodward, Newark City, Essex Co.	650 00	" " "	1,164 20
677— 476:	Linda M. Geraghty, Newark City, Essex Co.	650 00	" " "	1,164 20
678— 680:	Emma F. Baldwin, Newark City, Essex Co.	650 00	" " "	1,164 20

*Deceased.

†Granted under Act prior to 1906.

COMMISSIONER OF EDUCATION.

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Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1918.
679-684:	Agnes B. Clarke, Newark City, Essex Co.	\$850 00	Sept. 15, 1916	\$1,164 20
680-948:	Amelia Douglas, Orange City, Essex Co.	480 00	" " "	859 72
681-2008:	Emma J. Bainbridge, Newark City, Essex Co.	650 00	" " "	1,164 20
682-2178:	Almeda M. Olds, Newark City, Essex Co.	650 00	" " "	619 22
†683-1915:	Lavina Reid, Hoboken City, Hudson Co.	594 00	" " "	1,039 50
684-1645:	Jane Eleanor Pearson, Jersey City, Hudson Co.	650 00	" " "	1,164 20
685-1715:	Clara Post, Jersey City, Hudson Co.	650 00	" " "	1,164 20
686-1739:	Louisa M. Goetze, Jersey City, Hudson Co.	650 00	" " "	1,164 20
687-2549:	Mrs. Bessie D. Sked, Hopewell Township, Mercer Co.	320 00	" " "	591 06
688-1400:	Frances K. Peters, Trenton City, Mercer Co.	650 00	" " "	1,164 20
688-7072:	Jennie M. Strong, Atlantic Township, Monmouth Co.	384 00	" " "	687 78
689-5180:	Elizabeth Benard, Neptune Township, Monmouth Co.	480 00	" " "	859 72
691-5181:	Mrs. Hannah A. B. Stout, Neptune Township, Monmouth Co.	480 00	" " "	859 72
692-376:	Elizabeth Thorpe, Passaic City, Passaic Co.	594 00	" " "	1,063 90
693-1086:	Jessie F. Day, Paterson City, Passaic Co.	510 00	" " "	912 45
694-1159:	Jane Neer, Paterson City, Passaic Co.	510 00	" " "	912 45
695-4757:	J. Harry Smith, Oldmans Township, Salem Co.	459 00	" " "	822 10
696-5214:	Alfarata Dilks, Pilesgrove Township, Salem Co.	345 00	" " "	617 82
697-173:	Anna Coombs, Salem City, Salem Co.	435 00	" " "	779 11
698-1243:	Matilda B. Fallon, Elizabeth City, Union Co.	535 20	" " "	953 59
699-1259:	Emily A. Cheney, Elizabeth City, Union Co.	510 00	" " "	912 45
700-3356:	George P. Albright, Rahway City, Union Co.	650 00	" " "	1,164 20
701-3500:	Georgia Morris, Atlantic City, Atlantic Co.	582 00	Dec. 8, 1916	909 06
702-1954:	Ida T. Ware, Bridgeton City, Cumberland Co.	408 00	" " "	637 09
702-779:	Ada E. Sargeant, Newark, Essex Co.	650 00	" " "	1,015 94
704-7198:	Elizabeth Wyckoff, Newark City, Essex Co.	650 00	" " "	1,015 94
705-1518:	Stella Stanley, Jersey City, Hudson Co.	650 00	" " "	1,015 94
706-1533:	Elizabeth S. McGown, Jersey City, Hudson Co.	650 00	" " "	1,015 94
707-3053:	James E. White, Town of Union, Hudson Co.	650 00	" " "	1,015 94
708-2790:	May Schall, Trenton City, Mercer Co.	493 68	" " "	771 62
709-1136:	Josephine Conwell, Paterson, Passaic Co.	650 00	" " "	1,015 94
710-5785:	George Oliver Nelson, Pompton Township, Passaic Co.	650 00	" " "	1,015 94
711-6245:	Mrs. Harriet A. L. Clapp, New Barbadoes Township, Bergen Co.	474 00	Mar. 16, 1917	611 97
712-549:	Kate L. Bristol, Newark City, Essex Co.	650 00	" " "	839 20
713-720:	Arnold Voget, Newark City, Essex Co.	650 00	" " "	639 20
714-1064:	Bessie L. De Motte, Jersey City, Hudson Co.	650 00	" " "	839 20
715-13521:	Mrs. Alice Mary Eckoff, Newark City, Essex Co.	627 60	" " "	810 39
716-649:	S. Fannie Carter, Newark City, Essex Co.	650 00	Apr. 20, 1917	776 28
717-3169:	Mrs. Mary L. Metz, Jersey City, Hudson Co.	650 00	" " "	776 28
718-2764:	Thomas L. Walters, South Bound Brook Borough, Somerset Co.	558 00	" " "	686 49

*Deceased.

†Granted under Act prior to 1906.

Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1918.
119-3477:	Mrs. Isabel B. Huff, Perth Amboy City, Middlesex Co.....	\$555 00	Apr. 20, 1917	\$863 66
720- 831:	Mary A. Burrough, Camden City, Camden Co.	650 00	June 15, 1917	676 70
121- 891:	Elizabeth A. Cassady, Camden City, Camden Co.....	650 00	" " "	676 70
722- 872:	Kate F. Dinan, Camden City, Camden Co.	650 00	" " "	676 70
723- 838:	Anna Holland, Camden City, Camden Co.	468 00	" " "	487 23
724-1909:	Elinor G. Howard, Hoboken City, Hudson Co.	650 00	" " "	676 70
725-3464:	Anna Johntra, Camden City, Camden Co.	650 00	" " "	676 70
726- 866:	Margaret T. Magee, Camden City, Camden Co.	650 00	" " "	676 70
727-1453:	Anna J. Mahlstedt, Jersey City, Hudson Co.	650 00	" " "	676 70
728- 71:	Fannie DeWitt Person, Belvidere Town, Warren Co.	360 00	" " "	374 79
729-2030:	Lester L. Rosenkrans, Leonia Borough, Bergen Co.	650 00	" " "	676 70
730-2219:	Elizabeth M. Stanger, Ridgewood Township, Bergen Co.....	484 20	" " "	504 09
731-1993:	Harriet C. Clinton, Bordentown City, Burlington Co.	393 00	Sept. 28, 1917	297 98
732-1494:	Elizabeth Frazee, Jersey City, Hudson Co.	650 00	" " "	492 84
733- 355:	Carrie C. Herbert, Southampton Township, Burlington Co.	250 00	" " "	189 56
734- 79:	Louise J. McConnell, Perth Amboy, Middlesex Co.....	570 00	" " "	432 18
735-2169:	Josephine Mahon, East Orange, Essex Co.	650 00	" " "	492 84
736-5349:	Charles W. Oley, Midland Park Borough, Bergen Co.	650 00	" " "	492 84
737-1123:	Elizabeth M. O'Neill, Paterson City, Passaic Co.....	450 00	" " "	341 20
738-3542:	Mahlon B. Reed, Palisades Township, Bergen Co.....	650 00	" " "	492 84
739-1618:	Grace H. Sayers, Jersey City, Hudson Co.	650 00	" " "	492 84
740- 426:	Emma M. Sturgis, Newark City, Essex Co.	650 00	" " "	492 84
741-1606:	Esther Van Winkle, Jersey City, Hudson Co.	650 00	" " "	492 84
742-2342:	Amanda Wilson, Hammonton Town, Atlantic Co.	462 00	" " "	350 00
743-2763:	Mrs. Emille F. Woodruff, Lawrence Township, Cumberland Co.	267 84	" " "	203 08
744- 168:	J. R. Fitzer, Jersey City, Hudson Co.	594 00	Jan. 1, 1918	297 00
745-2004:	Herman A. Stees, Burlington County Superintendent	650 00	Oct. 20, 1917	454 95
746- 222:	Georgia T. Underhill, Rahway City, Union Co.	450 00	" " "	314 93
747-1733:	Kate R. Carlin, Jersey City, Hudson Co.	650 00	Jan. 5, 1918	317 88
748-3112:	Katie Francis, Camden City, Camden Co.	650 00	" " "	317 88
749-1907:	Virginia Harry, Hoboken City, Hudson Co.	650 00	" " "	317 88
750-2408:	Ella McDanolds, Cranford Township, Union Co.	589 20	" " "	288 15
751-7505:	Agnes R. Moore, Red Bank Borough, Monmouth Co.	600 00	" " "	293 43
752-1078:	Margaret M. E. Phelan, Paterson City, Passaic Co.....	450 00	" " "	220 08
753-1140:	Louise E. Pulver, Paterson City, Passaic Co.	540 00	" " "	264 09
754-1479:	Agnes R. Reilly, Jersey City, Hudson Co.	650 00	" " "	317 88
755- 1:	Elijah D. Riley, Absecon City, Atlantic Co.	551 40	" " "	269 66
756- 69:	Tillie G. Rittenhouse, Belvidere Town, Warren Co.	360 00	" " "	176 06
757-1556:	Sara Sickels, Jersey City, Hudson Co.	650 00	" " "	317 88
758-2267:	Mrs. Lelia B. Valentine, Millville City, Cumberland Co.	360 00	" " "	176 06
759-2151:	Wilbur Watts, Burlington City, Burlington Co.	650 00	" " "	317 88

†Granted under Act prior to 1906.

Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1918.
760—763:	Margaret Baird, Newark City, Essex Co.	\$650 00	Jan. 5, 1918	\$317 88
761—169:	Eliza E. Jaquett, Salem City, Salem Co.	423 00	" " "	206 87
762—579:	Sarah E. McDonald, Newark City, Essex Co.	643 00	" " "	314 46
763—1798:	Mary S. Meehan, Jersey City, Hudson Co.	650 00	" " "	317 88
764—752:	Matilda Johnson Speer, Newark City, Essex Co.	650 00	" " "	317 88
765—4735:	Mrs. Adeline K. Stillwell, Red Bank, Monmouth Co.	549 00	Feb. 1, 1918	222 26
766—2233:	Anna M. Branson, Beverly Township, Burlington Co.	430 08	Jan. 5, 1918	210 68
767—5518:	Elizabeth C. Allen, Atlantic City, Atlantic Co.	650 00	Mar. 30, 1918	167 84
768—16:	Amelia J. Peters, Lakewood Township, Ocean Co.	462 00	" " "	119 29
769—7487:	Grace A. Wood, State Normal School, Trenton	650 00	" " "	167 84
770—207:	Anna W. Booraem, Plainfield, Union Co.	650 00	June 30, 1918	1 78
771—3422:	Kersey S. Blake, Newark, Essex Co.	650 00	July 1, 1918	.....
772—5536:	W. Irving Bray, Cliffside Park Borough, Bergen Co.	650 00	" " "	.....
773—5782:	Ala Media Everitt, South Amboy City, Middlesex Co.	387 00	June 30, 1918	1 06
774—1285:	Katharine A. Hughes, Elizabeth, Union Co.	650 00	July 1, 1918	.....
775—1333:	Anna Rebecca Lanning, Trenton, Mercer Co.	510 00	" " "	.....
776—868:	Celia E. Roth, Camden City, Camden Co.	450 00	June 30, 1918	1 23
777—993:	Hannah J. Shafer, Bayonne City, Hudson Co.	650 00	June 1, 1918	.....
778—1349:	Mary E. Steen, Trenton City, Mercer Co.	650 00	June 30, 1918	1 78
Totals to June 30, 1918—778.....		\$367,553 72		\$1,901,738 85
Averages		472 43		2,444 89

*Deceased.
**Deceased before deficit to Fund was paid.
***Deceased before annuity began to accrue.
†Granted under Act prior to 1906.
††Granted under Act of 1906.
†††Resumed teaching; payment of annuity suspended.
††††Numbers 191 and 463 were granted under exceptional circumstances; see foot notes.
‡Balance due estate of deceased annuitant.
All other annuities granted under Act of 1907.

STATISTICS IN RE ANNUITIES GRANTED FROM BEGINNING TO JUNE 30, 1918.

	Men.	Women.	Total.
Number of annuities granted	122	656	778
Annual value of annuities	\$59,522 48	\$308,031 24	\$367,553 72
Average annual value	487 88	469 55	472 43

DECEASES.

	Men.	Women.	Total.
Number of deceases	44	145	189
Annual value of annuities.....	\$20,657 60	\$61,267 80	\$81,925 40
Average annual value	469 49	422 53	433 46

ANNUITANTS RESUMED TEACHING.

No 269, annuity suspended	\$297 60
No. 523, annuity suspended	313 80
Total	\$611 40

ANNUITIES IN FORCE JUNE 30, 1918.

	Men.	Women.	Total.
Annuities in force June 30, 1918.....	78	509	587
Total annual value	\$38,864 88	\$246,152 04	\$285,016 92
Average annual value	498 26	483 59	485 54

APPLICATIONS FOR ANNUITY PENDING JUNE 30, 1918.

At the close of the last fiscal year, June 30, 1918, 52 applications for annuity were under consideration by the Board of Trustees. Those entitled to the State pension are indicated by a dagger (†); those applying under Acts prior to 1906 are indicated by an asterisk (*); all applications not indicated by an asterisk are under the Act of 1907.

Number, Name, District and County.	Date Filed with Secretary.	Amount Eligible to of Annuity.	State Pension.
†1977—Rovilla L. Babcock, Bridgeton, Cumberland Co.	Dec. 12, 1917	\$351 00	\$292 50
†2020—Mrs. Anna F. Barber, Pennsgrove Borough, Salem Co.....	May 25, 1918	279 30	232 75
†2619—Cornelius V. Boughton, Highlands Borough, Monmouth Co.	June 4, 1918	650 00	610 00
† 922—J. Clotilda Brennan, Orange, Essex Co.	Dec. 12, 1917	488 40	407 00
2951—Sara R. Budd, Trenton State Normal School	Dec. 12, 1917	650 00	No.
† 343—Jennie C. Carmody, New Barbadoes Township, Bergen Co.	Feb. 9, 1918	598 20	498 50
† 811—Marie C. Contessa, West Hoboken, Hudson Co.	Dec. 6, 1917	650 00	1,200 00
†2074—Clara P. Correll, Phillipsburg, Warren Co.	May 16, 1918	450 00	375 00
3124—Mrs. Isabella D. Coxson, Chester Township, Burlington Co.	Mar. 4, 1918	408 00	No.
† 22—Mary Ella DuBois, Red Bank, Monmouth Co.	Mar. 12, 1918	606 00	505 00
†2031—Rebecca Earle Gismond, Leonia Borough, Bergen Co.	Mar. 13, 1918	462 00	385 00
† 411—Josephine Augusta Field, Newark, Essex Co.	June 4, 1918	650 00	940 00
2287—Hiram Lanning Fisher, Milford Borough, Hunterdon Co.	Dec. 12, 1917	441 00	No.
†2240—Mary M. Gee, West Orange, Essex Co.	Mar. 18, 1918	618 00	515 00
4331—Elizabeth Hall, Trenton, Mercer Co....	Mar. 12, 1918	484 00	No.
† 897—Eva Halliwell, Camden, Camden Co....	June 5, 1918	536 98	448 00
†2810—Anna A. Harvey, Trenton, Mercer Co..	Mar. 12, 1918	564 00	470 00
5920—Georgia Hegeman, Newark, Essex Co..	May 3, 1918	650 00	No.
†2935—Emilie Hepburn, Washington Township, Mercer Co.	April 17, 1918	426 00	355 00
*2912—Mrs. Julia B. Hutchinson, Trenton, Mercer Co.	Nov. 23, 1917	398 48	No.
393—Mrs. Elizabeth R. Jarvis, Passaic, Passaic Co.	June 12, 1918	528 00	No.
† 493—Ednah Jessie Keene, Newark, Essex Co.	June 6, 1918	650 00	550 00
†1262—Minnie E. Loach, Elizabeth, Union Co.	Mar. 11, 1918	547 20	456 00
† 839—Cora B. Locke, Camden, Camden Co....	Dec. 12, 1917	483 00	402 50
†1290—Emma A. Lockerson, Trenton, Mercer Co.	Dec. 12, 1917	650 00	859 00
†*2189—Katherine L. McNulty, Jersey City, Hudson Co.	Mar. 9, 1918	600 00	732 00
†1557—Charlotte O. Marsh, Jersey City, Hudson Co.	Mar. 12, 1918	650 00	612 00
†1522—Martha A. Mellor, Jersey City, Hudson Co.	May 25, 1918	650 00	627 00
† 398—Grace Merry, Newark, Essex Co.....	May 23, 1918	650 00	555 00
†2570—Adelaide Davis Miller, Newark, Essex Co.	Mar. 11, 1918	650 00	555 00
† 652—Mattie M. Miller, Newark, Essex Co....	Mar. 11, 1918	650 00	552 50
† 621—M. Alice Moore, Newark, Essex Co....	May 29, 1918	650 00	563 00
† 297—Caroline M. Moorhouse, Somerville, Somerset Co.	April 2, 1917	414 00	345 00
†1844—Mrs. Kate J. Myddleton, Hoboken, Hudson Co.	Nov. 23, 1917	650 00	657 40
†1423—Mary H. Nicholson, Jersey City, Hudson Co.	Sept. 4, 1917	650 00	944 16

Number, Name, District and County.	Date Filed with Secretary.	Amount Eligible to of Annuity.	State Pension.
†3086—Mrs. Frances Hawkins Porter, Trenton, Mercer Co.	June 14, 1918	\$480 00	\$400 00
6410—Katharine Regina Rice, Harrison, Hud- son Co.	June 14, 1918	600 00	No.
† 586—Lucy Anna Richards, Newark, Essex Co.	April 25, 1918	650 00	555 00
†2343—Mary P. Rogers, Newark, Essex Co....	Mar. 12, 1918	650 00	660 00
4767—Mrs. Bertha B. Schooley, Andover Township, Sussex Co.	Feb. 25, 1918	272 40	No.
† 170—Mrs. Sara A. Smith, Pilesgrove Town- ship, Salem Co.	Mar. 11, 1918	540 00	450 00
†6526—Mattie Staggs, Palisades Township, Ber- gen Co.	Dec. 4, 1917	414 00	345 00
† 574—Fannie Taylor, Newark, Essex Co.....	June 11, 1918	650 00	555 00
†1532—Mary A. Tew, Jersey City, Hudson Co.	May 4, 1918	650 00	632 00
†4737John Calvin Tilton, Wall Township, Mon- mouth Co.	May 1, 1918	421 92	362 75
6529—Mrs. Lizzie L. Townsend, Burlington City, Burlington Co.....	Dec. 12, 1917	429 00	No.
†4138—Mrs. Helen G. Smith Ulmer, Atlantic City, Atlantic Co.....	Mar. 20, 1918	650 00	600 00
† 80—Amanda E. VanNuis, Perth Amboy, Middlesex Co.	April 30, 1918	600 00	590 00
†1292—Katharine M. Warner, Elizabeth, Union Co.	Mar. 13, 1918	650 00	840 00
† 235—Carrie Welsh, Wallington Borough, Ber- gen Co.	Mar. 7, 1918	453 00	377 50
†1994—Anna P. Wheeler, Bordentown City, Burlington Co.	Mar. 22, 1918	399 00	332 50
357—Jennie T. Wright, Mullica Township, Atlantic Co.	Mar. 8, 1918	319 68	No.
Totals—52		\$28,262 56	\$22,254 15
Averages		543 51	542 78

†Entitled to State half-pay pension.
*Application made under Act prior to 1906. All applications not indicated by an
asterisk are under Act of 1907.
41 of the 52 applicants are entitled to a State half-pay pension, and are indicated by
a dagger (†).

SYNOPSIS OF BUSINESS OF FISCAL YEAR 1917-1918.

The operations of the year which ended June 30, 1918, may be summarized as follows: Receipts, \$277,543.74. (Note—The above receipts do not include \$22,500.00 received on account of investments. The actual income, received and receivable, was at least \$12,000.00 in excess of these figures. At the time the State Treasurer's books closed, June 30, 1918, many districts had not remitted for the April-June quarter. The State Treasurer reports that receipts for July, 1918, were \$35,052.15 against \$22,953.04, in July, 1917; an increase of \$12,099.11, which amount may legitimately be added to the 1917-1918 income. The Trustees have taken action to learn prior to July 1, 1919, precisely what is due the Fund). Disbursements were \$275,416.70, of which \$274,451.72 was for annuities. (Note—The aforesaid disbursements do not include investments amounting to \$28,792.17). The surplus on the year's business was \$14,226.15. Forty-eight annuities were granted; total annual value, \$26,983.24; average, \$562.15. Eight annuities were granted to men; total annual value, \$5,045.40; average, \$630.67. Forty annuities were granted to women; total annual value, \$21,937.84; average, \$548.44. Thirty-eight of the 48 annuities granted in 1917-18, averaging \$562.51, were entitled, also, to a State pension averaging \$644.49, making \$1,207.00 the total entire average retiring allowance of these 38. The average retiring allowance (Retirement Fund annuity) of the 10 not entitled to a State pension was \$560.47. Eighteen annuities deceased in 1917-'18; total annual value, \$8,818.56; average, \$489.92. Two annuities have resumed teaching, No. 523, \$313.80, in April, 1914; No.

269, \$297.60, in November, 1917; payment of these annuities has been suspended, and they are deducted from total annuities living and in force. The net 1917-'18 increase in annuity obligations was \$17,867.08. A number of applications were rejected because the applicants had not proved in the judgment of the Board of Trustees that they were permanently incapacitated, as required by law. At the close of business June 30, 1918, fifty-two applications (see table) were pending action by the Trustees; total annual value, \$28,262.56; average, \$543.51. On the same date, 587 annuities were in force; total annual value, \$284,405.50; average, \$484.50. Assets, (estimated) \$497,100.75; annuities and expenses paid to midnight June 30, 1918.

RECAPITULATION FROM BEGINNING TO JUNE 30, 1918.

The Teachers' Retirement Fund became a part of New Jersey's Public School System by virtue of Chapter 32, page 58, Laws of 1896, (enacted March 11th), nine times amended and re-enacted, and has always been a part of the State School Law. The latest general revision is Chapter 139, page 365, Laws of 1907, Article XXV, School Law, (approved May 7th). The latest enactment is Chapter 180, page 514, Laws of 1918, which permits the making of temporary investments. The first appropriation made by the State to pay the administrative expenses of the Fund was Chapter 95, page 194, Laws of 1905, providing \$1,500.00, which became available for the year that began November 1, 1906.

The Constitutionality of the "by virtue of appointment" provision, (Section 221, Division IV, Chapter 139, page 165, Laws of 1907; Article XXV, School Law), was sustained by the case of Myrtle Allen vs. the Passaic City Board of Education, in the District Court, the Supreme Court, and the Court of Errors and Appeals. The case is reported in the Advance Programs of the New Jersey State Teachers' Association for 1910 and 1911, and in the Annual Reports of the same organization for 1910 and 1912.

To June 30, 1918, seven hundred and seventy-eight teachers had been granted annuities, aggregating a total annual value of \$367,553.72; averaging \$472.43, and had received benefits totaling \$1,902,312.67; averaging \$2,445.13. Of the 778 annuities granted, 122 were to men, total annual value, \$59,522.48; average, \$487.88, while 656 annuities had been granted to women; total annual value, \$308,031.24; average, \$469.55. One hundred and eighty-nine annuities had deceased; total annual value, \$81,925.40; average, \$433.46. Annuities No. 269, (\$297.60), and No. 523, (\$313.80), had resumed teaching, and payment of annuity suspended. Five hundred and eighty-seven annuities were in force June 30, 1918; total annual value, \$285,016.92; average, \$485.54. Total rebates paid, \$1,208.32. Assets, June 30, 1918. Investments, \$377,914.70; cash in bank, \$107,086.94; dues receivable, (est.) \$12,099.11; total, \$497,100.75; annuities and expenses paid in full to date. Total cash raised by Fund to June 30, 1918, (Approx.), \$2,420,642.85. Receipts from bequests, legacies and gifts, \$7,716.92; receipts from bazaars, fairs, excursions, entertainments, etc., \$31,330.49; of this total amount, (\$38,937.41), \$33,445.82 was contributed prior to January 1, 1906. All such moneys, including legacies, bequests and gifts, go into the invested permanent principal, and

therefore, by the process of compound interest, have practically doubled, so it is safe to assume that of the Fund's present net assets, \$497,100.75, above \$75,000.00 must be credited to the proceeds of fairs, entertainments, legacies, gifts, etc., with compound interest thereon.

BALANCES DUE ESTATES OF DECEASED ANNUITANTS
JUNE 30, 1918.

The following statement, which is corrected annually, shows balances due estates of deceased annuitants on June 30th, last, the end of the fiscal year. Some of the items are in process of settlement. Some have not been claimed, though this Board, immediately on learning of a decease, seeks the nearest of kin and does all in its (the Board's) power to enable them to collect. In most of the above-reported cases, there has been no response to the inquiries. In the "List of Beneficiaries," each of the deceased annuitants is charged, under "Total Recd. from Fund," with the balance due the estate.

No.	Number and Name.	Date of Decease.	Balance Due Estate.
3—	Abby M. Munn.....	Apr. 8, 1913	\$8 16
27—	Janet F. Wright.....	Nov. 14, 1912	30 26
81—	Anna R. Johnson.....	Feb. 9, 1908	27 20
117—	Mrs. Mary Louise Keating.....	July 22, 1907	22 66
126—	Lucinda I. Ellis.....	Oct. 11, 1914	7 45
156—	Martha M. Putnam.....	Nov. 10, 1912	28 94
166—	Mary Louise Vreeland.....	Jan. 18, 1916	27 81
Totals—7			\$152 48

BEQUESTS, LEGACIES AND GIFTS.

Following is a schedule of legacies and gifts to June 30, 1917:

1899—	Henry E. Harris, Bayonne, Hudson Co.; gift.....	\$50 00
1900—	Emily S. Sayre, annuitant, Woodstown, Salem Co.; legacy; half her estate	2,285 74
1902—	Mary G. Lindsley, annuitant, Morristown, Morris Co.; gift; balance of annuity due estate; Thro. her sister, Miss H. Anna Lindsley	33 00
1905—	Carrie B. Runyon, annuitant, Plainfield, Union Co.; legacy	100 00
1908—	Lydia V. Marden, annuitant, Trenton, Mercer Co.; legacy; ten shares of stock of New Jersey Interstate Fair Association, par value, \$10.00	100 00
1912—	Edward Kelly, annuitant, Jersey City, Hudson Co.; legacy..	500 00
1912—	Rachel H. Strong, annuitant, Waterford Tp., Camden Co.; gifts; balance annuity due estate; Thro. Miss Sarah E. Wilson, of Westmont	1 61
1913—	Minnie Whitehead, annuitant, Rahway, Union Co.; gift; balance annuity due estate; Thro. Miss Adelia Oppelt, executrix	36 43
1914—	Alex. P. Kerr, annuitant, Lambertville, Hunterdon Co.; gift; balance annuity due estate; Thro. Miss Annie F. Stout	32 04
1914—	Lizzie H. Kaighn, annuitant, Camden, Camden Co.; legacy	500 00

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1915—Clara V. Havens, annuitant, Hoboken, Hudson Co.; gift; balance annuity due estate; Thro. Miss Louise S. Win- ter, executrix	8 90
1917—Jessie B. Mikels, annuitant, Newark, Essex Co.; legacy; one-third her residuary estate; Lathrop Anderson, executor	3,069 20
Mrs. Elizabeth Hughes Tatler, Trenton, Mercer Co.; mem- ber of Fund; legacy	1,000 00
Total	<hr/> \$7,716 92

NEW LEGISLATION.

Chapter 180 of the Laws of 1918, (Bill introduced by the Honorable Edward P. Stout, of Jersey City, at the request of Mr. William J. Field, Chairman of the Investment Committee of the Fund Board of Trustees), permits the temporary investment of surplus funds, so that same may be sold when and if money is needed to pay annuities. This will increase income from interests some \$5,000.00 a year. Theretofore surplus funds in bank drew 3%. Money invested went into the "Permanent Principal," and became permanently unavailable for payment of annuities.

ACTUARIAL INVESTIGATION.

Mr. David Parks Fackler, of Messrs. Fackler and Fackler, who made an actuarial investigation of the Fund at the expense of the New Jersey State Teachers' Association, reported to that organization at a meeting held in Dickinson High School, Jersey City, on November 3d, 1917. The substance of Mr. Fackler's report was that the Fund could run for about nine years on its present free cash balance of some \$200,000.00, and about thirteen years on its entire reserve of about \$500,000.00.

STATE COMMISSION ON PENSIONS AND RETIREMENT
FUND.

The 1917 Legislature appointed a joint Senate and Assembly Pension and Retirement Fund Commission to investigate and report on all the various New Jersey pension and retirement funds for municipal, county and State employees. Assemblyman Arthur N. Pierson, of Westfield, is Chairman. The other members are Senator William E. Florance, of Middlesex; Senator William B. Mackey, Jr., of Bergen; Assemblyman Elmer H. Geran, of Matawan, and Assemblyman A. Dayton Oliphant, of Trenton. The Trustees of the Teachers' Retirement Fund had a conference with the Commission on October 3, 1917, at the State Chamber of Commerce offices, Clinton Building, Newark, which was confined to an informal interchange of views. The Commission made a preliminary report to the Legislature of 1918, and is expected to introduce bills in the next session.

COMMISSIONER OF EDUCATION.

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RECEIPTS AND DISBURSEMENTS YEAR BY YEAR FROM BEGINNING TO JUNE 30, 1918, COMPILED FROM STATE TREASURER'S ANNUAL REPORTS.

The following Tables show by fiscal years: (I) The amount of Receipts and from what sources derived; (II) The amount of Disbursements, and for what purposes expended.

TABLE I.—RECEIPTS FROM BEGINNING TO JUNE 30, 1918, COMPILED FROM STATE TREASURER'S ANNUAL REPORTS.

Fiscal Year.	Members' Dues.	Interest.	Annuity Account.	Entertain-ments, Dona-tions, Lega-cies, Dupli-cate Certi-ficates, etc.	Investments Paid off.	Total Receipts.	Fiscal Year.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1896-'97	\$9,835 95	.....	.....	\$1,375 35	.....	\$11,211 30	1896-'97
1897-'98	14,379 12	.....	.....	297 00	.....	14,676 12	1897-'98
1898-'99	14,522 13	\$608 22	.....	.....	.....	15,130 35	1898-'99
1899-'00	13,181 60	1,109 36	.....	6,799 23	\$3,000 00	29,090 19	1899-'00
1900-'01	15,852 77	1,705 00	.....	3,195 40	.....	20,753 17	1900-'01
1901-'02	16,008 67	1,833 67	.....	2,412 04	.....	20,254 38	1901-'02
1902-'03	22,686 50	2,485 45	.....	3,265 80	.....	28,437 75	1902-'03
1903-'04	20,945 63	2,673 53	.....	2,853 36	.....	26,372 52	1903-'04
1904-'05	22,669 24	3,329 61	.....	2,793 13	.....	28,792 08	1904-'05
1905-'06	21,093 36	3,163 11	.....	10,501 51	.....	34,757 98	1905-'06
1906-'07	*35,095 19	4,258 15	.....	228 10	.....	39,581 44	1906-'07
1907-'08	52,523 48	3,842 85	.....	11 00	2,000 00	58,377 33	1907-'08
1908-'09	93,686 76	4,049 37	.....	6 00	.....	97,742 13	1908-'09
1909-'10	147,901 26	4,167 77	\$12 38	6 00	.....	152,087 51	1909-'10
1910-'11	166,138 27	8,670 31	.....	2 00	2,000 00	176,810 58	1910-'11
1911-'12	182,339 85	10,167 76	57 25	21 00	3,000 00	195,585 86	1911-'12
1912-'13	181,692 76	14,651 63	.....	554 04	1,000 00	197,898 43	1912-'13
1913-'14	216,838 14	15,014 61	.....	21 00	500 00	232,423 75	1913-'14
1914-'15	218,523 05	16,192 55	653 62	516 00	10,500 00	246,390 22	1914-'15
1915-'16	246,164 47	17,811 19	129 20	14 00	14,500 00	278,628 86	1915-'16
1916-'17	254,908 12	17,245 55	719 54	4,080 20	37,000 00	313,953 41	1916-'17
1917-'18	‡259,464 67	17,343 32	726 75	9 00	22,500 00	‡300,043 74	1917-'18
Totals...	‡\$2,226,401 19	\$150,323 01	†\$2,313 74	\$33,961 16	\$101,000 00	‡\$2,518,999 10	Totals

*Col. 2.—The advanced rates of dues under the Acts of 1906 and 1907 first show in the receipts for 1906-'07.
†Col. 4.—Annuities repaid to Fund on account of decease, overpayment, etc.
‡It is estimated that at least \$12,099.11 members' dues were receivable on June 30, 1918.

TABLE II.—DISBURSEMENTS FROM BEGINNING TO JUNE 30, 1918, WITH ASSETS AT END OF EACH FISCAL YEAR, COMPILED FROM STATE TREASURER'S ANNUAL REPORTS.

Fiscal Year.	Annuities.	Rebates.	Dues Deducted in Error and Re-funded.	Adminis-trative Expenses.	Invest-ments.	Legal Invest-ment and Miscellaneous Expenses.	Premium and Accrued Interest Paid on Investments.	Total Dis-bursements.	Assets End of Year.	Fiscal Year.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1896-'97	9579 01	.....	.....	\$1,024 01	.....	.....	.....	\$1,024 01	\$10,157 29	1896-'97
1897-'98	2,053 35	.....	.....	1,371 22	.....	.....	.....	2,280 22	23,553 13	1897-'98
1898-'99	5,897 13	.....	.....	1,449 44	\$3,000 00	.....	.....	11,077 59	34,135 94	1898-'99
1899-'00	8,190 33	.....	.....	1,631 27	\$7,000 00	.....	.....	44,548 45	47,667 03	1899-'00
1900-'01	12,975 02	.....	.....	1,772 64	16,500 00	.....	.....	8,923 53	53,457 33	1900-'01
1901-'02	14,365 45	\$100 66	.....	1,753 65	.....	.....	.....	24,353 33	63,853 69	1901-'02
1902-'03	19,174 50	210 73	.....	1,392 15	.....	.....	.....	15,968 33	74,323 21	1902-'03
1903-'04	22,168 97	184 33	.....	1,803 54	10,000 00	.....	.....	30,942 86	79,751 97	1903-'04
1904-'05	27,340 09	130 57	.....	1,523 27	15,000 00	.....	.....	23,830 31	84,723 24	1904-'05
1905-'06	36,624 55	208 09	.....	1,511 93	.....	.....	.....	44,080 11	90,421 11	1905-'06
1906-'07	53,473 33	117 14	.....	1,653 14	.....	.....	.....	36,293 23	93,608 72	1906-'07
1907-'08	64,063 17	53 43	.....	.....	3,000 00	**\$1,140 03	55 51	57,750 45	95,235 60	1907-'08
1908-'09	88,643 81	103 74	.....	33 40	.....	**494 85	.....	64,631 51	128,356 23	1908-'09
1909-'10	111,733 63	.....	153 43	.....	45,350 00	.....	.....	123,052 34	193,641 49	1909-'10
1910-'11	131,660 97	27 73	120 76	.....	50,000 00	.....	413 25	163,294 37	255,157 70	1910-'11
1911-'12	154,354 75	.....	171 03	.....	60,000 00	.....	3,998 69	201,730 06	313,013 50	1911-'12
1912-'13	183,494 50	.....	259 46	.....	.....	1 00	.....	154,615 21	355,296 72	1912-'13
1913-'14	206,946 92	.....	268 82	.....	25,000 00	.....	.....	206,763 22	403,457 15	1913-'14
1914-'15	230,290 19	.....	216 90	.....	14,000 00	.....	.....	221,163 32	432,183 55	1914-'15
1915-'16	256,642 67	86 52	255 28	.....	18,500 00	.....	.....	249,503 45	465,309 63	1915-'16
1916-'17	274,451 72	.....	83 80	.....	36,000 00	121,339 35	570 49	283,015 32	494,247 52	1916-'17
1917-'18	.....	.....	.....	.....	135,664 70	11984 98	1,372 92	412,454 32	497,100 17	1917-'18
Totals..	\$1,903,708 76	\$1,208 33	\$1,541 60	\$16,306 36	\$478,914 70	\$123,920 26	\$6,311 65	\$2,411,912 16	\$497,100 17	Totals

*Col. 5.—The State appropriation to pay administrative expenses became available November 1, 1906. All administrative expenses charged to on account of liabilities previously incurred

and \$664.93) are legal expenses, taxes, etc., on the Arvine H. Phillips loan, foreclosed.

OFFICERS AND TRUSTEES.

President—HON. CALVIN N. KENDALL, State Commissioner of Education.

Vice-President—HON. BLOOMFIELD H. MINCH, of Bridgeton; Banker, former State Senator.

Treasurer—HON. WILLIAM T. READ, Treasurer of the State of New Jersey, ex-officio. (The State Treasurer collects, has the custody of and disburses all moneys belonging to the Fund, and is custodian of all its securities).

Secretary—MISS ELIZABETH A. ALLEN, Principal, Hoboken Normal and Training School.

MISS SOPHIE M. BRAUN, Principal, School Number One, Elizabeth.

MR. JAMES E. BRYAN, Superintendent, Camden Public Schools.

MR. WILLIAM J. FIELD, of Jersey City; Vice-President, Commercial Trust Company of New Jersey; Secretary, New Jersey Bankers' Association.

MR. JAMES FITZPATRICK, of Paterson.

MR. ALBERT MONCRIEF, Principal, School Number Twenty-five, Jersey City.

MISS S. EMILY POTTER, Vice-Principal, Washington Street School, Newark.

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Annual Report
OF THE
State Board of Education
AND OF THE
Commissioner of Education
OF
NEW JERSEY
WITH ACCOMPANYING DOCUMENTS
For the Year Ending June 30th, 1919

RIDGEWOOD HIGH SCHOOL
Showing the New Building and the Athletic Field

ANNUAL REPORT

OF THE

State Board of Education

AND OF THE

Commissioner of Education

OF

NEW JERSEY

WITH ACCOMPANYING DOCUMENTS

For the Year Ending June 30

1919

TRENTON, N. J.
PUBLISHED BY THE STATE
1920

SOMERVILLE, N. J.
THE UNIONIST-GAZETTE ASSOCIATION, STATE PRINTERS
1920

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State Board of Education

1918-19

MELVIN A. RICE, *President*.....Atlantic Highlands
JOHN C. VAN DYKE, *Vice-President*.....New Brunswick
JOHN P. MURRAY.....Jersey City
D. STEWART CRAVEN.....Salem
THOMAS W. SYNNOTT.....Wenonah
ERNEST R. ACKERMAN.....Plainfield
ROBERT LYNN COX.....Montclair
OSCAR W. JEFFERY.....Englewood
CALVIN N. KENDALL, *ex-officio Secretary*.

1919-20

MELVIN A. RICE, *President*.....Atlantic Highlands
JOHN C. VAN DYKE, *Vice-President*.....New Brunswick
D. STEWART CRAVEN.....Salem
JOHN P. MURRAY.....Jersey City
THOMAS W. SYNNOTT.....Wenonah
ROBERT LYNN COX.....Montclair
OSCAR W. JEFFERY.....Englewood
PERCY H. STEWART.....Plainfield
CALVIN N. KENDALL, *ex-officio Secretary*

Committees State Board of Education

1918-19

Advisory

JOHN C. VAN DYKE, *Chairman*

OSCAR W. JEFFERY

JOHN P. MURRAY

Law

ROBERT LYNN COX, *Chairman*

JOHN P. MURRAY

JOHN C. VAN DYKE

Vocational

ERNEST R. ACKERMAN, *Chairman*

THOMAS W. SYNNOTT

D. STEWART CRAVEN

Finance and Legislation

THOMAS W. SYNNOTT, *Chairman*

ROBERT LYNN COX

ERNEST R. ACKERMAN

Normal Schools and Teachers

MELVIN A. RICE, *Chairman*

ROBERT LYNN COX

D. STEWART CRAVEN

School for the Deaf

JOHN P. MURRAY, *Chairman*

JOHN C. VAN DYKE

ERNEST R. ACKERMAN

Manual Training and Industrial School for Colored Youth

D. STEWART CRAVEN, *Chairman*

OSCAR W. JEFFERY

MELVIN A. RICE

1919-20

Advisory

JOHN C. VAN DYKE, *Chairman*

OSCAR W. JEFFERY

JOHN P. MURRAY

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D. STEWART CRAVEN

School for the Deaf

JOHN P. MURRAY, *Chairman*

JOHN C. VAN DYKE

ROBERT LYNN COX

Manual Training and Industrial School for Colored Youth

D. STEWART CRAVEN, *Chairman*

OSCAR W. JEFFERY

MELVIN A. RICE

Attendance

OSCAR W. JEFFERY, *Chairman*

THOMAS W. SYNNOTT

MELVIN A. RICE

PART I

REPORTS OF
PRESIDENT OF STATE BOARD OF EDUCATION
AND
COMMISSIONER OF EDUCATION
For year ending June 30, 1919

NEW JERSEY STATE BOARD OF EDUCATION
REPORT OF PRESIDENT

To the Senate and General Assembly of the State of New Jersey:

As required by law, I have the honor to submit herewith the Annual Report of the State Board of Education, together with important accompanying documents, for the school year from July 1, 1918, to June 30, 1919.

M. A. RICE,
President, State Board of Education.

STATE OF NEW JERSEY
DEPARTMENT OF PUBLIC INSTRUCTION

REPORT OF
COMMISSIONER OF EDUCATION

Trenton, December 6, 1919.

TO THE STATE BOARD OF EDUCATION

Gentlemen:

In compliance with the requirements of the School Law I have the honor to submit herewith the Annual Report of the Department of Public Instruction for the school year ending June 30, 1919.

The wide-spread epidemic of influenza interfered with the orderly progress of the schools.

Practically all the schools in the State were closed during a part of September, October and November. A good many schools which opened after they had been closed by influenza were obliged to shut down again because of its recurrence.

In a large number of schools it was with considerable difficulty that teachers were secured. Resource was made to the so-called "war emergency certificates," which provided that teachers who had once taught could be allowed to teach without further examination until the close of the war.

By the use of these emergency certificates it was possible to keep open quite a number of schools that otherwise would have been closed.

Some of the teachers who were teaching under these certificates were good teachers, but of many of them little could be said except that they had had experience in teaching.

On the whole, however, it was felt that it was better to keep the schools open even with poor teachers than to close them.

The population of the State, according to the State census of June, 1915, was 2,844,342. The total enrollment of pupils in all the various departments of the public schools in 1918-19 was 596,994. Of these pupils, over 51,000 were enrolled in the high schools of the State. The total school enrollment was approximately one-fifth of the total population of the State. To teach these children and youth 18,007 teachers were necessary.

The children were housed in 2,163 school buildings. Nearly 600,000 children were furnished, free of cost, books, supplies and the necessary apparatus for teaching. Some 300,000 of them were given some form of manual or industrial training. Approximately 9,000 boys, men, girls and women were given some form of vocational education. There were 18,679 children transported to schools at public expense because there were no schools suitable for them in their neighborhood.

All this indicates the vastness of public education in New Jersey.

The per capita cost of the schools, based on the number of pupils present, was $33\frac{1}{2}$ cents a day; for these children—actually present—this was approximately 6 cents an hour for each child.

While the aggregate amount is large, in terms of the actual individual child $33\frac{1}{2}$ cents seems a moderate cost per day, particularly in view of the very high cost of living, which affects the conduct of schools as well as the lives of individuals.

How many parents—especially mothers—are there in the State who would not be willing to contribute $33\frac{1}{2}$ cents a day merely for the care-taking of their children for five or five and a half hours a day, to say nothing of the benefits received by the children from the positive influences of education.

Such is the effort of the State, however imperfectly carried out, to obey the mandate of the Constitution, which reads:

“The Legislature shall provide for the maintenance and support of a thorough and efficient system of free public schools for the instruction of all the children in the State between the ages of five and eighteen years.”

From the foregoing it is seen that the schools are to be as free, thorough and efficient for pupils who are seventeen years of age as for those who are six.

Important facts in the report are summarized as follows:

During 1918-19 the current expenses for operating the schools amounted to \$25,451,014.43. This was an increase of \$3,709,718.56 over the preceding year. Over \$18,000,000 of this amount was ex-

pendent for salaries of teachers, superintendents and principals. Salaries of janitors and engineers cost \$1,685,995.39. Salaries of attendance officers cost \$186,090.45, and fuel \$1,096,559.06.

The expenses of the Department of Public Instruction and the State Board of Education were \$104,679.37, which is about one-half of one per cent of the current expenses.

There were enrolled in the schools, including evening schools, 596,994 pupils. Of this number, 25,560 were in the evening schools. In the day schools were 287,909 boys and 283,525 girls, making a total of 571,434 enrolled in the day schools. This was an increase of 9,609 in the day school enrollment.

Of this total of more than one-half million pupils, 40,428 were enrolled in the kindergartens, an increase of 570 over the preceding year. There were 272,358 pupils in the first four grades—or, as commonly known, the primary schools. The total number of pupils in grades five to eight inclusive was 174,695.

The total number registered in high schools was 51,379, an increase of 331. The high school registration was, therefore, practically the same as the year before. The fact that there was a slight increase instead of a decrease is gratifying in view of the temptations that young people in high schools have to withdraw from school in order to engage in commercial pursuits. Our high school registration for the past six years has been as follows:

1914	1915	1916	1917	1918	1919
38,099	44,314	50,030	50,726	51,048	51,379

The total number of day school pupils reported as neither absent nor tardy was 14,278, a decrease of 2,012 from the preceding year.

The total number of pupils enrolled in one-room rural schools was 18,577, a decrease of 1,438. The number in two-room schools was 14,231, an increase of 269. There was a decrease of 46 in the number of teachers in one and two room schools. These figures are indicative of the progress of consolidation of schools in the State.

The average daily attendance in day schools was 435,209, an increase of 11,459. The average absence of pupils was 16 days, 2 days less than the preceding year.

There was a decrease of men teachers in all the schools of the State of 181, and an increase of women teachers of 445.

SCHOOL REPORT.

CHIEF DISBURSEMENTS FOR THE LAST FIVE YEARS

	1915	1916	1917	1918	1919	Increase or Decrease
Salaries of teachers	\$12,291,576.00	\$13,545,693.37	\$14,449,414.81	\$15,785,310.12	\$18,487,036.04	\$2,701,725.92 I
Operation of school plant, including janitors' services	1,946,052.00	2,078,377.11	2,349,927.80	2,779,047.66	3,267,910.58	488,862.92 I
Maintenance of school plant, re- pairs, etc.	737,318.00	743,027.96	830,955.10	957,625.02	1,137,692.30	180,067.28 I
Purchase of land and erection of buildings	5,729,335.00	5,056,143.72	5,657,609.69	5,440,048.39	2,772,218.06	2,667,830.33 D
Transportation	372,920.00	412,405.38	430,728.71	529,527.27	655,882.72	126,355.45 I
Medical inspection	215,266.00	230,958.34	258,436.04	284,703.56	320,717.11	36,013.55 I
Manual training	554,287.00	587,979.48	661,213.04	741,146.64	787,212.14	46,065.50 I
Vocational training	167,000.00	206,156.68	211,274.49	276,226.01	252,339.41	23,886.60 D

SOURCES OF INCOME

Moneys for the support of the public schools were derived from various sources, as follows:

1. Income of State School Fund.....	\$250,000 00
Apportioned to counties on basis of days' attendance	
2. Appropriation by Legislature for General Purposes	783,444 78
3. Appropriation from State Railroad Tax.....	4,282,195 47
Apportioned to counties on basis of ratables	
4. State School Tax.....	7,842,323 68
90 per cent apportioned to counties on basis of ratables; 10 per cent apportioned to counties arbitrarily by State Board	
5. Interest on Surplus Revenue Fund.....	28,463 21
Apportioned to districts by county superintendents on general plan	
6. Local Appropriations	20,249,395 54
Used for current expenses, buildings and repairing, etc.	
7. Other Sources	958,848 33
Appropriated for special purposes	

SCHOOL PROPERTIES

The reported valuation of school properties increased during the year from \$79,000,000 to \$83,000,000. Reported valuations for the past ten years are in round numbers as follows:

1910.....	\$36,000,000	1915.....	\$64,000,000
1911.....	44,000,000	1916.....	69,000,000
1912.....	53,000,000	1917.....	74,000,000
1913.....	53,000,000	1918.....	79,000,000
1914.....	58,000,000	1919.....	83,000,000

It will be seen from these figures how great has been the increase in the valuations of school properties during the ten years.

COMPARISON OF THE STATE ADMINISTRATION EXPENSES WITH THE
CURRENT EXPENSES OF THE SCHOOLS OF THE STATE

July 1, 1918, to June 30, 1919

State Administration of the Schools.....	\$104,679.37
	½ of 1%
Current Expenses of the Schools	\$25,451,014.43
	99 ½ %

ANALYSIS OF STATE ADMINISTRATION EXPENSES

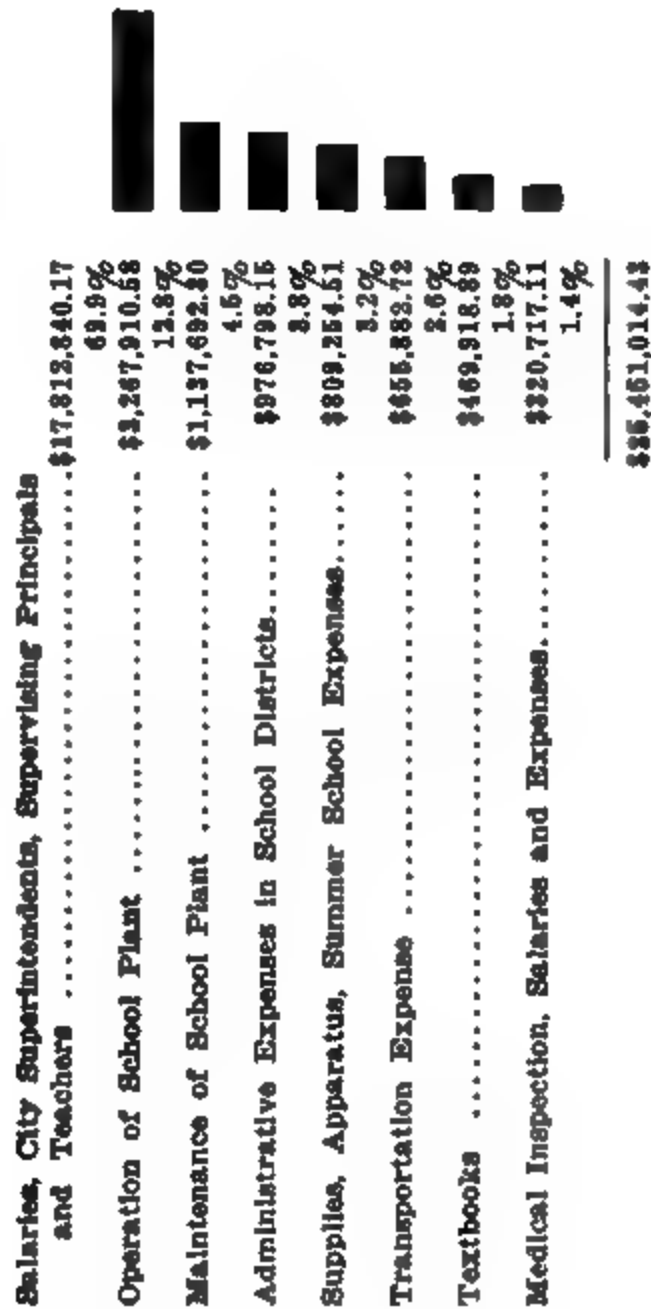
State Board of Education Expenses.....	\$2,834.76
Salaries	67,797.13
Operation	18,399.98
Miscellaneous	15,647.50
Total	\$104,679.37

ANALYSIS OF CURRENT EXPENSES

Salaries, Superintendents, Principals and Teachers..	\$17,812,840.17
Operation of School Plant	3,267,910.58
Maintenance of School Plant	1,137,692.30
Administrative Expenses in School Districts.....	976,798.15
Supplies, Apparatus, Summer School Expenses.....	809,254.51
Transportation Expense	655,882.72
Textbooks	469,918.89
Medical Inspection, Supplies and Expenses.....	320,717.11
Total	\$25,451,014.43

GRAPH OF CURRENT EXPENSES FOR EDUCATION

July 1, 1918, to June 30, 1919



STATISTICS ABOUT ENROLLMENT, ABSENCE, TEACHERS AND SALARIES, COVERING A PERIOD OF FIVE YEARS

189

SCHOOL REPORT.

	1916	1916	1917	1918	1919	Increase or decrease
Total enrollment of pupils in all schools, day and evening	563,240	578,931	579,242	595,413	598,994	1,581 I
This enrollment divided						
Day schools	519,880	540,287	544,281	561,325	571,434	9,600 I
Evening schools	43,360	38,644	34,961	34,088	27,560	8,028 D
Boys in day schools	263,228	273,079	274,701	282,789	287,909	5,130 I
Girls in day schools	256,652	267,208	269,580	279,036	283,525	4,489 I
Boys in evening schools	27,519	23,488	20,260	19,675	14,909	4,764 D
Girls in evening schools	15,741	15,156	14,702	13,913	10,651	3,262 D
Average daily attendance in day schools	409,417	421,884	427,874	433,750	435,309	11,459 I
Average absence of each pupil in days	15	17	14	13	16	3 days D
Enrollment						
One room rural schools	36,741	37,784	36,694	39,853	40,428	570 I
Two room rural schools	251,673	256,603	259,187	267,746	272,353	4,613 I
Teachers, total number	148,472	157,718	161,892	167,529	174,096	7,166 I
Men	44,314	50,030	50,726	51,048	51,379	331 I
Women	24,872	23,668	21,494	20,015	18,577	1,438 D
Teachers, total number	14,897	15,634	15,207	13,962	14,281	269 I
Men	15,969	16,741	17,296	17,742	18,007	264 I
Women	2,281	2,414	2,493	2,414	2,228	181 D
Teachers	13,688	14,327	14,303	15,329	15,774	445 I
One room rural schools, total	747	730	684	614	552	52 D
Men	123	107	78	49	56	6 I
Women	624	613	606	565	507	58 D
Two room rural schools total	433	444	469	419	436	6 I
Men	66	69	60	48	33	15 D
Women	367	375	409	371	393	21 I
Kindergarten, total	641	659	661	693	703	10 I
Primary schools,* total	5,635	5,805	5,938	6,079	6,222	143 I
Men	14	12	11	6	5	1 D
Women	5,621	5,793	5,927	6,073	6,217	144 I
Grammar schools,* total	3,909	4,153	4,282	4,495	4,578	83 I
Men	248	269	256	217	173	44 D
Women	3,661	3,889	4,027	4,278	4,405	127 I

*Primary schools include grades I to IV. Grammar schools include grades V to VIII. High schools include Grades IX to XII

STATISTICS ABOUT ENROLLMENT, ABSENCE, TEACHERS AND SALARIES, COVERING A
PERIOD OF FIVE YEARS—Continued

	1915	1916	1917	1918	1919	Increase or decrease
Teachers						
High schools,* total.....	1,654	1,852	1,928	2,009	2,007	68 I
Men	619	714	733	714	698	16 D
Women	1,035	1,138	1,195	1,295	1,379	84 I
Manual training, total	351	379	412	460	473	13 I
Men	153	173	190	194	209	15 I
Women	198	206	222	266	264	2 D
Salaries of teachers, total.....	\$12,291,576.00	\$13,546,693.37	\$14,449,414.81	\$15,785,310.12	\$18,487,036.04	\$3,701,725.92 I
Average salary per year, day schools						
One room rural schools	861.86	872.34	895.69	948.29	1,053.27	104.98 I
Men	522.72	553.32	552.02	614.01	679.95	65.94 I
Women	477.19	481.42	497.72	544.22	643.09	98.87 I
Kindergarten, women	753.67	760.04	779.67	813.49	903.02	89.53 I
Primary schools*						
Men	654.78	760.00	914.09	869.66	856.00	13.66 D
Women	729.14	737.00	766.04	791.09	880.67	89.58 I
Grammar schools*						
Men	937.98	955.01	963.40	1,046.44	1,156.67	110.23 I
Women	821.11	831.43	850.64	885.52	986.86	98.34 I
High schools*						
Men	1,551.48	1,578.17	1,605.63	1,724.07	1,906.45	182.38 I
Women	1,001.36	1,027.46	1,053.43	1,109.00	1,213.91	104.91 I
absenteeism	183	184	172	178	166	12 days D
during year	478	480	482	487	490	3 I
number	2,155	2,194	2,190	2,181	2,168	18 D
during year	60	66	45	42	19	23 D
property	844	827	803	760	709	51 D
normal schools	\$64,354,833.00	\$69,293,017.86	\$74,144,551.94	\$79,999,965.93	\$83,539,432.05	\$3,580,466.12 I
atkinson						
Montclair	278	260	285	292	265	27 D
Newark	227	170	233	253	211	47 D
.....	229	313	323	453	386	66 D
Total	734	743	846	1,002	862	140 D

*Primary schools include grades I to IV. Grammar schools include grades V to VIII. High schools include Grades IX to XII.

NEW TEACHERS AND THEIR PREPARATION

The following tables show the numbers, the preparation and the training of teachers who entered the schools of the State during the year ending June 30, 1919, with corresponding figures for the preceding seven years :

NUMBER OF TEACHERS

	1912	1913	1914	1915	1916	1917	1918	1919
Total number of new teachers entering the schools								
In schools outside of cities	1006	1055	1195	1201	1142	1144	1380	1315
In city schools.....	721	763	916	854	811	814	851	996
Total new teachers.....	1727	1818	2111	2055	1953	1958	2231	2311
This number was divided as follows								
In high schools outside of cities	126	181	223	252	217	210	237	291
In city high schools.....	91	119	208	225	210	161	151	179
Total high schools.....	217	300	431	477	427	371	388	470
In elementary schools outside of cities	880	874	972	949	925	931	1136	1018
In city elementary schools	630	644	708	629	601	641	683	811
Total elementary schools	1510	1518	1680	1578	1526	1572	1819	1829
In vocational schools outside of cities.....	....	....	....	....	....	....	7	6
In city vocational schools.	....	....	....	....	....	....	17	6
Total vocational schools	....	....	....	....	....	....	24	12
Included in the total were teachers of industrial subjects (manual training, domestic science, etc.)								
In schools outside of cities	14	24	39	47	36	41	67	60
In city schools.....	46	51	61	71	56	66	69	65
Total for industrial subjects	60	75	100	118	92	107	136	125
Also included were teachers of special subjects (music, drawing, etc.)								
In schools outside of cities	23	55	18	28	36	46	47	64
In city schools.....	42	18	18	22	28	65	119	100
Total for special subjects	65	73	36	50	64	111	166	164

PREPARATION OF THESE TEACHERS

	1912	1913	1914	1915	1916	1917	1918	1919
Graduates of New Jersey State Normal Schools								
Entering schools outside of cities	209	211	287	305	402	410	558	475
Entering city schools.....	84	112	211	231	281	307	267	403
Total	293	323	498	536	683	717	825	878
Graduates of City Training Schools in New Jersey								
Entering schools outside of cities	30	22	24	22	20	20	28	9
Entering city schools.....	232	228	231	171	120	123	153	153
Total	262	250	255	193	140	143	181	162
Graduates of Colleges, Universities and Technical Institutions								
Entering schools outside of cities	194	256	248	280	273	251	288	314
Entering city schools.....	161	174	200	196	209	202	217	188
Total	355	430	448	476	482	453	505	502
Graduates of Normal Schools without the State								
Entering schools outside of cities	367	384	387	315	223	213	275	286
Entering city schools....	208	214	230	203	146	132	153	180
Total	575	598	617	518	369	345	428	466
With only partial or no Normal School, College or University Training, except one summer school session								
Entering schools outside of cities	206	182	249	279	224	250	231	231
Entering city schools.....	36	35	44	53	84	50	61	72
Total	242	217	293	332	308	300	292	303

It appears:

1. That more new teachers entered the schools last year than in any previous year, due probably to war conditions. Many withdrew from teaching to enter the industries, where the financial remuneration was much greater, and in consequence there were more vacancies to fill. The following table for the past eight years is self-explanatory:

SCHOOL REPORT.

	1912	1913	1914	1915	1916	1917	1918	1919
Whole number of teachers in State	12,652	13,312	14,014	14,811	15,571	17,296	17,743	18,007
New teachers required	1,727	1,818	2,111	2,055	1,953	1,958	2,231	2,311
Proportion of new teachers to whole number of teachers	13.7%	13.7%	15.1%	13.9%	12.5%	11.3%	12.6%	12.8%

Substantially one teacher out of eight in the State was new to the service last year. The teaching service of the average teacher in New Jersey appears to be eight years.

The country schools, as usual, suffered most from changes in teachers.

2. That upwards of 100 more new teachers entered the high schools outside of cities than entered the city high schools, which indicates more frequent changes of teachers in the smaller high schools of the State.

3. That the number of new teachers entering the elementary schools outside of cities was approximately 200 more than the number of new teachers entering city elementary schools. This also reveals how much more numerous are changes in the smaller districts than in the cities, New Jersey being largely an urban State. It is difficult under such circumstances to give the country child advantages equal to those received by the city child.

4. That of the new elementary teachers, 878 were reported as graduates of our own normal schools. Out of the 1829 teachers who entered these schools, therefore, 48 per cent were graduates of our own normal schools, or less than one-half of the total number of new teachers.

5. That in 1914—five years ago—our own normal schools turned out only 30 per cent of the trained teachers entering elementary schools. The increase to about 48 per cent is gratifying.

6. That in the high schools the number of new teachers who were graduates of colleges, universities or technical institutions was practically the same as last year. It should be again stated that practically all these teachers were trained in institutions outside the State. The number of graduates entering the high schools from higher institutions within the State was practically negligible.

7. That the number entering the elementary schools from normal schools outside the State was 466. Five years ago the number was 617.

Five years ago, of the 1,115 normal school graduates entering our schools 55 per cent were trained outside the State and 45 per cent were trained by the normal schools within the State. It is gratifying to note that last year, out of 1,344 graduates entering the elementary schools, approximately two-thirds were graduates of our own normal schools.

When the normal school at Glassboro is in operation, thus increasing the facilities for the training of teachers, it is probable that 80 per cent of our trained teachers will be from within the State.

As stated before, it would be unfortunate if we should fill all our vacancies from the normal schools within the State. This would be a process of inbreeding which would not be helpful to the children.

The number of untrained teachers entering the schools of the State is still too large. More than 300 were reported from the elementary field as without training other than that which is supplied by summer schools. Of this number probably one-third were teaching on war emergency certificates, which were made necessary by the scarcity of teachers. The ruling making this possible provided in substance that any teacher who had taught successfully in the New Jersey schools might be given a war emergency certificate, the regular rules for the certification of teachers being thus temporarily amended.

THE SITUATION AS REGARDS THE TEACHER

The teacher situation in New Jersey is serious. It is serious because of the scarcity of teachers. And the scarcity of teachers is chiefly due to a scarcity of money. It will be more serious next year and the following year unless social, industrial and economic conditions change.

A few schools in the State have not opened at the time this report is written because of the impossibility of finding anybody to teach school.

The schools are affected by the general labor shortage in the country.

Probably 200 schools in the State are now taught by teachers with too slender qualifications for the work they are attempting to do. This condition is serious, for it affects the education—and affects it seriously—of at least 6,000 children. It is unfortunate that this

large number of children should be handicapped because of a lack of adequate teaching.

There is a danger, and a real danger, that the schools may be taught by a poorer grade of teachers than we have had.

Local boards of education have found out to their sorrow that the scarcity of teachers is not imaginary, but real.

Upwards of 2,000 new teachers are required in the State each year because of the growth of the schools and because of resignations. It is difficult to see at this time where this supply of 2,000 teachers is to be found.

A real crisis confronts the schools of New Jersey, and in fact the schools of the country, at the present time.

The war has laid new obligations on the schools, and there is much public opinion that schools of all kinds are more necessary now than ever before, and yet we cannot have schools without teachers, and we cannot have good schools without good teachers.

What are the causes of the scarcity of teachers?

It is not difficult to answer this question.

Most of our teachers are women and this is likely to be true for many years to come. Men have disappeared from the schools except in the high school, in superintendents' and principals' positions, and in manual training and physical training work.

Of late the avenues of employment open to women have enormously increased in this country. Occupations open to women have increased twenty-fold in as many years.

Young women of ability can find employment in a score of occupations which were formerly not open to them; indeed, the occupations themselves in many cases did not exist.

The graduates of our high schools readily secure positions in New York and Philadelphia and in the cities in our own State, which offer larger financial remuneration than is offered in teaching.

It is not strange that young women who graduate from our high schools seek a shorter avenue of earning their living through commercial pursuits than through teaching. Hundreds of young women have gone into offices after a very brief period of training for office work, attracted by the numerous positions open to them at salaries larger than the schools in many places offer.

For example, I know of a young woman, a graduate of one of our high schools, who after six weeks' preparation secured a position as a filing clerk in New York at \$95 a month.

I know of a young man who graduated from one of our high

schools in the commercial course who received an initial salary of \$1,200 a year in the government service at Washington under Civil Service rule. His teacher receives a salary of \$750.

I recently went into a school system in the State where there were four eighth grade rooms. I asked the girls how many of them hoped to become teachers. In the four rooms about six hands came up. In the same rooms more than fifty girls announced their decision to go into some kind of clerical work.

The public might as well know now as at any other time that there is a growing reluctance on the part of qualified young women to teach school.

The reasons are not wholly financial, but they are largely so.

At one of the principal women's colleges in the country a year ago 91 young women in the senior class looked forward to becoming teachers. This past year there were 19.

This situation is not merely a New Jersey matter; it pertains to the whole country. New Jersey is especially affected, however, because we are in the neighborhood of great cities which offer so many opportunities of employment to young women.

The standards of entering the teaching profession in New Jersey are low. Our minimum requirement is graduation from high school and two sessions at one of the summer schools, which are training schools for teachers. These requirements are lower than in some other States.

These requirements should be raised rather than lowered. I am opposed to lowering the standards of teaching in New Jersey. They are too low now.

I believe that thoughtful and discriminating citizens who are interested in the schools and in the children are of the same opinion.

In my judgment, we must not consider for a moment the lowering of our standards if we want good schools maintained. If we want poor schools then let us say so frankly and go out and pick up anybody on the street and make him a school teacher.

This situation would not be so serious if the victims of it were not children, who are the most precious asset we have.

The children suffer and the State will suffer by having poor schools. The difference between a good school and a poor school is due chiefly to the difference in teachers. It is an enormous waste of the children's time and of public money to maintain poor schools.

Poor schools are costly schools. In fact, a school may be so poor that it would be better to close it and send the children home.

Such conditions exist in some States. I don't believe that the people of New Jersey want to stand for that sort of thing in respect to their schools.

New Jersey is not a poor State. The pride of its people, as a whole, in the schools is intense, and everywhere the statement is made that teachers should be paid larger salaries.

I believe that the schools are very dear to the people.

This statement is proved by the fact that the total expenses for operating our schools have doubled since 1910, as pointed out elsewhere in this report. In 1910 practically \$12,000,000 was paid out for current expenses, while this past year more than \$25,000,000 was spent.

This 100 per cent increase is due chiefly to the growth of the schools of the State in nine years, to increases in the salaries of teachers and janitors, and to the extension of public school facilities. The total amount of salaries paid teachers in 1910 was \$8,647,804; in 1919 it was \$18,487,036.

The local boards of education have responded splendidly to the present situation by increasing salaries, in many cases very generously. Boards have shown their broad public spirit in making these increases. I believe the people demand good schools, and it is my duty as Commissioner of Education to point out the existing conditions.

The cause of this situation which I have thus briefly presented is due chiefly to the inadequate salaries paid to teachers. This is a fact about which much has been said and written, but about which not enough has been done. The time has come when more must be done about it or there will be bankruptcy in our school system.

We must pay larger salaries to teachers, and this does not mean increasing teachers' salaries \$50 or \$100 a year, but much more than this.

Teachers in service and young women intending to take up teaching know that the cost of everything they buy has increased approximately 80 per cent—to put it modestly—in the last five years. The value of a dollar has been cut in two. Almost everything that the teacher buys has doubled in cost and many things have more than doubled in cost.

The necessary wants of teachers are numerous.

In many districts of the State teachers are paying \$12 a week for board, room and laundry, and in some cases more. Our school

year is approximately forty weeks in length and the cost of the teacher's bare living expenses is therefore nearly \$500 a year.

Teachers must dress well as an example to their pupils and appropriate dressing costs a lot of money nowadays.

I know of a teacher who went into a New Jersey district. She needed a coat. She found that she could not buy one for less than \$30 or \$40. She needed a pair of shoes that cost from \$8 to \$12 a pair. Her annual salary was \$700 a year.

Moreover, the books she must buy, her necessary traveling expenses, and her dentist bills have increased in cost by one-third.

It is true that there has been an increase in teachers' salaries, but it has by no means kept pace with the increased cost of living.

These are stern, unpleasant facts to recite but they are true.

My sole purpose in calling attention to them is my interest in the schools of New Jersey and in the children of New Jersey.

If it were not a fact that there are other employments open to young women the situation would not be so serious. But the fact is that these other employments are open and young women will enter them where the pay is larger.

The public should understand that there is great unrest among the teachers at the present time. They feel that they are inadequately paid. They compare their own salaries with wages received in the industries. They find that barbers, plumbers, street laborers and sewer diggers receive in many cases two or three times as much as teachers are receiving.

Teachers are unorganized. The signs of the times point to the organization of teachers—to affiliation with the labor organizations. They do not care to take this step. They will not do it unless economic pressure compels it.

In my judgment teachers cannot bear this situation with equanimity of spirit.

Teaching is an affair of the spirit, and the spirit needs to be contented and satisfied if the teacher is to devote her whole energy to the work of teaching and training children.

They feel that it is grossly unjust for people to talk about the importance of the work of teachers and then give them such inadequate pay.

In one of the small cities of New Jersey street sweepers receive \$4 a day for an eight hour day. They average 300 days a year, which brings their wages up to practically \$1,200 for twelve months.

In the same city, grade teachers receive \$783 for twelve months

and others receive a bare \$800. The women in the rural schools received an average salary last year of \$673.62.

These teachers have the responsibility of shaping the everlasting destiny of the children. Is this responsibility worth one-third less than a street sweeper can earn? A blacksmith earns two and a half times as much as the average school teacher and a bricklayer three times as much.

May the teacher look forward to the time and hope against hope that she may earn as much salary in a year as a miner or a hod-carrier?

The cost of living has borne very heavily upon salaried people, and particularly upon teachers, who must dress better and spend more money in other ways than the ordinary salaried person.

I am speaking not only of the kindergarten and grade teachers but of the teachers in the high schools, particularly men, and of superintendents and principals as well.

Most of the men in the high schools are college or university graduates. We need married men—men with families. But the time has come when we cannot secure the right kind of men in our schools. The State suffers in consequence, the children suffer, and the future citizenship of the State suffers.

I want to make a plea, then, for larger salaries for men teachers as well as for women teachers. We need a larger number of men in the schools, particularly in the high schools. We need active, virile, forceful men who will give these young people the kind of training they should have.

The time has come when the American people must wake up to the situation and pay teachers salaries which will not only keep in the teaching profession those who are already there, but will attract to teaching a high grade class of young men and women.

As indicative of the scarcity of teachers, in 1916 there were enrolled in our three normal schools more than 2,200 students. At the present time there are only about 1,400 students enrolled. This is an alarming situation. It would seem that the New Jersey school system is headed for the rocks of incompetency unless we do something about this salary question.

The Commissioner visited a school system last year in the southern part of the State in which teachers are paid good salaries—salaries of \$1,200 or more for every teacher.

It was a novel and refreshing experience to visit that school.

Teachers were well dressed and they were happy and contented. They were not obliged to worry about making both ends meet.

The children were happy and contented also. Real progress was being made because the teachers were being paid adequate salaries and they knew it and were devoting their best interests to their work and to the children.

If we could have such schools everywhere in the State we would quickly become known as having the best schools in the United States.

This State is not poor in this world's goods, but whether rich or poor we cannot maintain the standard of our schools unless generous and adequate salaries are paid to our school teachers, both men and women, throughout the State.

I propose three things as a remedy for this situation:

1. That the minimum wage law for all teachers be made at least \$90 a month instead of \$70 a month.

2. That the graduates of the normal schools who have devoted two years of their time and money to preparing themselves for teaching be given a minimum salary of \$1,200 a year.

Something must be done and done at once to make teaching more attractive to young women who graduate from our high schools. In my judgment, this can be done when we virtually say to these graduates: "If you will spend two years in the normal school preparing for teaching the State will guarantee you a salary of \$1,200 a year." In this way we may be able to attract young women to our normal schools who are not attracted now.

It is to be remembered that the schools are in competition with business and that business at the present time is having the upper hand. If this is not corrected the children of the State will suffer.

3. I recommend for serious consideration that the State tax for schools be increased from $2\frac{3}{4}$ mills on the dollar to 5 mills on the dollar. This would increase the State's distribution of funds to the districts by more than six millions of dollars.

It is to be recollected that 90 per cent of this tax is redistributed to the districts on the basis of ratables.

This millage tax has not been increased since 1903—16 years ago. The cost of the schools has doubled since 1910.

This increase is really necessary to have the schools maintained as they should be. The schools are not costing the State as a State any more than they did ten years ago, while the cost of living has enormously increased.

Districts are demanding larger distributions of money from Trenton, and the districts should, in my judgment, have the privilege of this larger distribution.

The time has come when the State should step in as a State and help arrest the discontent that prevails among teachers at the present time.

The teachers as a body of workers are at present unorganized, although there is much agitation in favor of organizing for the benefits which it is believed might come to them because of organization.

Has not the time come when the State should emphasize its attitude of appreciation toward its teachers? There should be such generous treatment of teachers as would make them continue to be efficient workers without having to be under the necessity of occupying their minds with ways and means of securing enough money to live on a plane appropriate to the importance and dignity of their work.

Teachers of the State made splendid contributions to winning the war. No class of workers except the soldiers themselves did more.

Let it be remembered in these days of unrest that the greatest asset in the State through which it can get sane propaganda for Americanism and good government is the teaching body of the public schools.

Nothing should be left undone by the State to continue to have the support of the teachers of the State.

These teachers influence 600,000 children. Both through the teachers and the children the homes are reached and influences are set afoot which redound to the benefit of the State.

Other reasons may be advanced for the scarcity of teachers.

One is the growing reluctance of many young women to teach school at all. The general social, industrial and economic situation points to this reluctance.

They prefer the activity of offices and other business pursuits, settlement work in our cities, library work and other employments which are without the confinement and hard work of schools.

These are forces calculated to withdraw young women from teaching. We must have schools and we must have teachers, and the only way to combat the tendency not to teach is to make the financial attractions so large that we can get these young women.

There is still too much politics in some districts of the State, and this has the tendency to keep some persons out of teaching and out

of school work. There are a few school systems in the State to-day suffering because politics has been allowed to creep in.

It is not simply Democratic or Republican politics. It is also the kind of politics in evidence when the board of education insists upon electing teachers in spite of the recommendations of the superintendent of schools.

In my judgment, the superintendent of schools is the sole official who should nominate teachers. We should have a statute to that effect, as New York has and as many progressive cities have.

I have no words strong enough to express my detestation of political methods in an institution which deals with innocent girls and boys. Such methods should be hit on the head wherever they appear. Favoritism and playing politics should be absolutely eliminated from the New Jersey schools.

Nearly all the private colleges and institutions of the country are endeavoring at this time to increase their endowments by subscriptions from their alumni. The amounts asked for range from a half million dollars to fifteen million dollars.

It is to be hoped that these institutions will secure the amounts they are trying to obtain.

It should be remembered, however, that the number of children enrolled in the public schools of the State of New Jersey more than equals the number of students registered in the American colleges for both sexes.

It would seem that the State of New Jersey is wealthy enough to provide adequate funds for the teaching of its children in its public schools. The State is not poor.

If Bolshevism, anarchy and the Reds are to be put down in America—as they will be—we must look to the sound education of the rising generation as an antidote for the evils of these unrestful times.

SALARIES OF TEACHERS

The total amount of salaries paid day school teachers in the State, not including superintendents, assistant superintendents or evening school teachers of any kind, was \$18,487,036.04, which was an increase of \$2,701,725.92 over the preceding year.

The average salary per year paid to all day school teachers in the State (17,066) not including superintendents, assistant superintendents or evening school teachers of any kind, was \$1,083.27, an increase over the preceding year of \$134.98.

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Corresponding averages for the past five years were as follows:

1914	1915	1916	1917	1918	1919
\$851.42	\$861.86	\$872.34	\$895.69	\$948.29	\$1,083.27

This indicates that for the period beginning with 1914 and ending with 1919—six years—the increase in salaries of the teachers of the State was 27.3 per cent. The cost of living in the same period increased at least 80 per cent.

These figures are eloquent. They explain why there is a scarcity of teachers, why teachers are withdrawing in large numbers from the schools of the State, and why, unless a remedy is applied, not merely will our schools be seriously crippled but many of them will be entirely crippled and put out of business from a lack of teachers.

These averages, of course, include the cities. Included also are the one-room schools, in which the average salaries by sexes are as follows:

	1915	1916	1917	1918	1919
Men	\$522.72	\$553.32	\$552.02	\$614.01	\$679.95
Women	477.19	481.42	497.72	544.22	643.09

The average salaries paid to teachers in different kinds of schools were as follows:

	Men	Increase	Decrease	Women	Increase
Kindergartens .....	.....	.....	.....	\$903.02	\$89.53
Grades 1 to 4	\$856.00	.....	\$13.66	880.67	89.58
Grades 5 to 8	1,156.67	110.23	.....	986.86	98.34
High schools	1,906.45	182.38	.....	1,213.91	104.91
Special teachers, ungraded and backward classes.....	1,358.33	170.83	.....	1,073.12	131.03
Manual training	1,342.58	119.80	.....	1,061.01	106.19

As showing the difference in salaries that prevail in certain communities in the State in the fall of 1919—the current school year—the following figures are significant.

Salaries in East Orange are as follows:

	Minimum	Maximum
High Schools		
Principal	\$3,500	\$4,000
Teachers—men	1,300	2,500
women	1,000	2,000
Elementary Schools		
Principals .....	.....	3,500
Departmental teachers, grades 7 and 8	1,000	1,500
Grades 5 and 6	900	1,400
Grades 1 to 4	850	1,300

Salaries in Montclair are as follows:

	Minimum	Maximum
Senior High School		
Men	\$1,700	\$2,550
Women	1,200	1,750

Junior High Schools		
Men	\$1,400	\$1,950
Women	1,200	1,650
Elementary Schools		
	\$1,000	\$1,400

Salaries in Ventnor City are as follows:

Principal (man),	\$3,200
Grade 1,	\$1,100, \$1,200, \$1,500
Grade 2,	\$1,000, \$1,500
Grade 3,	\$1,000, \$1,500
Grade 4,	\$1,000, \$1,500
Grade 5,	\$1,000, \$1,500
Grades 6, 7, 8 (departmental),	\$1,300 to \$1,500

Salaries in Jersey City are as follows:

	<i>Minimum</i>	<i>Maximum</i>
Primary principals	\$1,900	\$2,700
Elementary teachers	900	1,500

Salaries in Newark are as follows:

High Schools	<i>Minimum</i>	<i>Maximum</i>
Principals	\$3,600	\$4,800
Teachers—men	1,500	2,800
women	1,000	2,300
Elementary Schools		
Principals—men	1,900	3,500
women	1,700	3,000
Teachers	900	1,500

In Sussex County, on the other hand, out of a total of 149 teachers teaching in 17 districts, 79 receive salaries of not more than \$750 each.

In Salem County the average salary of elementary teachers is reported by townships as follows:

Alloway	\$782.50	Penn's Grove	763.88
Elmer	748.12	Pilesgrove	844.44
Elsinboro	630.00	Pittsgrove	693.75
Lower Alloways Creek.....	686.25	Quinton	775.00
Lower Penn's Neck.....	751.50	Salem City	800.00
Mannington	715.00	Upper Penn's Neck	950.00
Oldmans	804.69	Upper Pittsgrove	795.00

In Ocean County the average salary of primary teachers is between \$700 and \$750. The average salary of high school teachers is \$1,090.

SCHOOL REPORT.

STATEMENT REGARDING SALARIES OF TEACHERS IN DAY SCHOOLS

TEACHERS RECEIVING	1917				1918				1919			
	MEN		WOMEN		TOTAL		MEN		WOMEN		TOTAL	
	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL
Less than \$300	1	17	18	5	18	23	1	14	15			
\$300 to \$399	4	76	80	5	18	23	2	7	9			
400 to 499	31	776	807	13	427	440	4	74	78			
500 to 599	39	1964	2003	26	1594	1620	13	402	415			
600 to 699	72	2580	2652	48	2800	2848	37	1827	1864			
700 to 799	79	2211	2290	45	2232	2277	33	2720	2753			
800 to 899	78	1812	1890	63	2080	2143	29	2347	2376			
900 to 999	84	1315	1399	65	1899	1964	37	2002	2039			
1000 to 1099	116	853	969	103	1202	1305	51	1599	1650			
1100 to 1199	77	913	990	76	895	971	44	1024	1068			
1200 to 1299	119	744	863	104	662	766	85	640	725			
1300 to 1399	85	274	359	82	595	677	72	865	937			
1400 to 1499	82	117	199	104	151	255	68	240	308			
1500 to 1599	93	79	172	107	93	200	122	713	835			
1600 to 1699	82	72	154	91	99	190	74	150	224			
1700 to 1799	62	36	98	69	40	109	74	56	130			
1800 to 1899	77	53	130	90	63	153	115	140	255			
1900 to 1999	38	22	60	43	23	66	63	22	85			
2000 to 2499	233	50	283	256	68	324	262	113	375			
2500 to 2999	121	6	127	140	6	146	196	32	228			
3000 and over	122	.....	122	125	.....	125	161	10	171			

COMPARATIVE STATEMENT, BY COUNTIES, OF TEACHERS RECEIVING \$800 OR MORE

COUNTY	NUMBER RECEIVING \$800 OR MORE			TOTAL NUMBER OF TEACHERS IN THE COUNTY .		
	1917	1918	1919	1917	1918	1919
Atlantic	285	320	374	543	542	530
Bergen	552	640	898	1276	1358	1389
Burlington	39	50	107	403	400	394
Camden	343	424	511	895	914	934
Cape May	33	41	68	178	181	176
Cumberland	39	52	94	350	361	367
Essex	2370	2487	3054	3204	3314	3437
Gloucester	21	31	64	274	280	283
Hudson	1837	2062	2536	2559	2626	2741
Hunterdon	16	35	55	205	195	195
Mercer	370	410	526	731	750	751
Middlesex	243	334	487	707	752	803
Monmouth	263	308	409	659	672	676
Morris	162	193	257	437	448	459
Ocean	26	35	52	174	172	170
Passaic	571	681	848	1230	1261	1293
Salem	15	23	47	206	217	227
Somerset	56	92	139	286	283	279
Sussex	29	34	42	179	171	173
Union	516	605	768	933	985	1020
Warren	34	37	70	241	243	243
Totals	7820	8894	11406	15670	16125	16540

THE IMPROVEMENT OF TEACHERS AND SUPERVISION

Our greatest problem is to discover and inaugurate better methods of classroom teaching in all schools from the kindergarten to the high school.

The improvement of our teaching is, in my judgment, the foremost consideration for teachers and school administrators everywhere.

It is true that the public will tolerate poor or inefficient teaching because the public—and the most intelligent public—has no way of ascertaining the enormous difference between a good school and a poor one.

The greatest weakness of the schools is the self-satisfied teacher and the self-satisfied superintendent with reference to the kind of teaching that is done. Tradition has a very strong hold upon American teachers. And some of these traditions are unfortunate from the view of the progress of children.

Children get more sound training in a given time in one school than they would in twice the time in another school. In schools of the latter type teachers are without the vision of what the children might accomplish. Their standards are low and they are without knowledge of what good teaching really means.

The Department has striven throughout the year, as it has in the past, to improve the quality of teaching and to improve the quality of the supervision in the State. Owing to the numerous changes in teachers, which are too common in New Jersey—and elsewhere as well—the work in this field is never done.

The Department has encouraged the superintendents and helping teachers to hold numerous teachers' meetings. These meetings have been beneficial. There have been probably five times as many meetings of teachers held in the State during the past year as were held formerly.

The county institutes have been more productive of good results in teaching, as a result of the endeavor to make these institutes more worth while. We need a larger appropriation for these institutes so that they can be held in practically every county in the State.

As heretofore, the State was organized into three sections for superintendents' and principals' meetings, each of which was two days in length.

Following is a program provided at one of these meetings. It is typical of the other two programs. There is so much testimony as to the value of these meetings that similar meetings will be held this coming year.

THURSDAY, JANUARY 23

11:00 Address—Commissioner Kendall

Discussion

12:00 Responsibilities of the High School of To-day—Dr. A. B. Meredith,
Assistant Commissioner of Education

Discussion—W. F. Little, Rahway; E. D. Wagner, Pennington

2:15 Tangible and Helpful Results of War Work in Our Public Schools,
and How They are to be Capitalized for the Future, as Illus-
trated in Long Branch Schools—Christopher Gregory

Discussion—Jesse Selover, Sayreville; J. W. Alexander, Hamilton
Township

3:15 A Consistent Policy of Education as Determined or Affected by Recent
World Events—Dr. George D. Strayer, President National
Education Association

Discussion—Ira Chapman, New Brunswick

4:15 What is Progress in School Supervision?—Dr. A. L. Johnson, Elizabeth
Discussion—R. G. Sanford, Leonardo; Mrs. Sara B. Hernberg,
Ocean County; W. A. Ackerman, Somerville

8:00 Measuring Pupil Achievement in Red Bank Schools—Paul R. Rad-
cliffe

Discussion—C. A. Deveney, Jamesburg; W. J. Bickett, Bernardsville

9:00 Address—Dr. Frederick Maroney, Director of Physical Training

Discussion—R. J. Eilenberger, Clinton; S. E. Shull, Perth Amboy

FRIDAY, JANUARY 24

- 9:00 Problem Teaching as Illustrated in Lambertville Schools—J. H. Herring
Discussion—E. J. Nelson, Lakewood ; L. D. Deyo, Roselle
- 10:00 Problem Supervision as Illustrated in Westfield Schools—C. A. Phil-
hower
Discussion—Miss Jennie Haver, Hunterdon County ; D. F. Aungst,
North Plainfield
- 11:00 Motivation—Z. E. Scott, Assistant Commissioner of Education
Discussion—C. J. Strahan, Freehold ; F. E. Spring, Highland Park

PARENT-TEACHER ORGANIZATIONS

The organization of parent-teacher associations, or similar organizations, has gone on in practically every part of the State. There are probably three hundred of these organizations in the State outside the large cities. And there are many similar city associations.

The parent-teacher organizations have been beneficial to the schools of the State. They have as a rule assisted in creating a healthy public sentiment in the various communities and have been an asset in bringing about the improvement of school conditions.

They have enlisted the sympathy, interest and support of many communities where these were lacking before. In many instances they have effected improvement of school conditions. They have been an influence in the securing and retention of good teachers. They have helped to increase teachers' salaries. They have brought about the supplying of schools with necessary equipment, such as books, phonographs, pictures, and physical training apparatus both indoors and outdoors.

Not the least part of their usefulness has been the bringing together of fathers and mothers in the neighborhood and the creating of an interest in the community as a whole.

The helping teachers, supervising principals, and county superintendents have borne abundant testimony as to the helpfulness of these organizations. I regard them as of great value to the New Jersey school system.

In some counties there is a county organization which is composed of representatives of these parent-teacher associations, and which meets annually.

There is also a State organization entitled "New Jersey Congress of Mothers and Parent-Teacher Associations," which has an annual meeting.

Below are extracts from reports rendered to me by superintendents

of schools and helping teachers, which show what some of these associations have accomplished.

Our many local parent-teacher associations and the County Council have been very active during the year. I have attended several of their meetings, made suggestions and taken part in their discussions. In Camden County these associations are functioning quite effectively.—*Superintendent Charles S. Albertson, Camden County.*

One of the big accomplishments of the past three years has been the awakening of the people of the county to the needs of their schools. Country people are beginning to see the value and necessity of cooperating more closely with school boards, teachers and community leaders. Teachers are beginning to see the value of securing assistance from the parents. Both teachers and parents are happier because of this new feeling of confidence, and the children profit mightily because of it.

The parent-teacher associations have played a large part in creating this active and enlightened public sentiment in educational matters. At the present time there are fifteen very much alive parent-teacher associations in the northern part of the county. These associations held seventy-eight community meetings during the past year and raised \$898.68 for school improvement. In July of this year a school community voted to build a two-room consolidated school at a cost of \$10,000. This was a direct result of the work started in the first parent-teacher association organized three years ago in October. . . .

Among the results due to the combined work of the parents and the schools are the following: cooperating with school nurse, securing better heating arrangements for one school, assisting with hot lunches in seven schools, providing new window shades, purchasing flag and flag pole, creating sentiment in favor of new school furniture, purchasing new song books in two schools, securing sufficient seat work supplies, influencing school boards to purchase modern textbooks, providing individual towels and drinking cups, beautifying and grading school grounds, buying playground apparatus, purchasing framed pictures, paying \$2 for State traveling library in three schools, raising \$10 to be duplicated by State for school libraries in ten schools, buying paper cutter and hectograph for school, raising money for piano in two schools, raising money for phonograph in six schools, purchasing phonograph records and cabinet, assisting with Junior Red Cross, assisting with all war drives, encouraging work in school clubs, assisting with school entertainments, making costumes for school pageants, assisting with school festivals, providing lunch for children attending school festivals, influencing teachers to stay in their present positions, encouraging teachers to do better work.—*Jennie M. Haver, Helping Teacher, Hunterdon County.*

Three years ago only those under contract to do so visited the rural schools. To-day the school is fast becoming the center of interest in a major part of our rural communities. Just as soon as a teacher developed to the point where her work was worthy of commendation and when she was ready to have a parent-teacher association in her school, Mr. Hoffman and I suggested that she

Working on Red Cross Garments—Atlantic City

Members of Calf Club—Sussex County

Hot Lunch Team at Tranquility
School, Sussex County

A "Get Together Day" Chorus,
Franklin, Sussex County

Boys' Vocational School Float for Armistice Day, Atlantic City. Shields
electric lighted



invite the parents of her community in to see her teach. We have been present at eighteen such meetings this year, publicly commended the teacher's work, emphasized her need of support and encouragement, organized an association, and thus helped to place in a position of leadership one who had occupied previously a position on the outer edge of the adult social group. One teacher in whose school we had organized a parent-teacher association, when offered a permanent government position paying \$400 more than she was getting said, "I can't bear to leave now. We have just started our P. T. A., and I feel that the fine community spirit that is developing might die. Why the men are so keen about our evening community meetings that they speak up in a wink if we propose a meeting on a date when they have other engagements." She stayed and has developed a live community center where farmers, their wives, and the young people meet twice a month, play games, and enjoy refreshments. The men of her community hauled gravel for walks for the schoolground in the muddy season, erected booths for the township festival, roasted hot "doggies" for sandwiches, and sold ice cream to raise money for a school phonograph. The women and men contributed money for a blue flame oil stove, hot lunch equipment and supplies, appealed to the Board of Education for necessary building repairs and movable chair desks, and backed her loyally in every move that she made for improvement of school conditions. In a second community the men in addition to co-operating in ways similar to those previously mentioned loaned and cleaned a large barn for a school bazaar. They have promised to dig out the cellar of a one-room building and fit out a manual training room in response to a request of the teacher. A third community has installed hot lunch equipment, purchased a hundred and fifty dollar piano, a library, secured movable chair desks by an appeal to the Board of Education and made numerous other improvements. These communities are but three among twenty where teachers have exercised leadership among groups of adults. Teachers like other people are more willing to stay in positions in which they can see that their work is appreciated. . . .

In an attempt to reveal factors that have operated in holding some of our best teachers in South Hunterdon during the very difficult war period and in face of the added difficulties presented by one-room schools, I have many times referred to community interest as a factor in the promotion of the growth of the teachers, and the growth of the teachers as a factor in the promotion of community interest in the schools. The two are inseparable and equally important phases of any intelligent drive for good schools.

Since coming to the county I have helped to organize 22 parent-teacher associations, 13 of them during the past year. At the organization meeting we presented school and community needs and attempted to show how parents might cooperate to enrich the lives of their children by securing school or traveling libraries; by subscribing for school copies of "The Youth's Companion," "St. Nicholas," or "The National Geographic;" by purchasing phonographs or other musical instruments, beautiful framed pictures, hot lunch equipment, playground apparatus, etc.

As a result we have phonographs in 21 schools, with funds for them started in 2 others; new or traveling libraries in 20 schools or funds raised for them; 12 framed pictures have been purchased, 18 subscriptions to the

"Youth's Companion," "St. Nicholas" or "The National Geographic," have been ordered; hot lunch equipment has been provided for 10 schools, and many other improvements have been made. Parent-teacher associations in South Hunterdon have during the past year raised more than \$1,200.

The following list represents resulting material improvements: 1 piano, 1 organ, 8 phonographs, 112 records, 3 sinks, 1 emergency kit, 8 traveling libraries, 12 school libraries, 1 kindergarten table and chairs, 12 framed pictures, 1 globe, 8 sand-tables, 1 flag, 8 blue flame oil stoves and utensils, 2 cupboards, coat hangers for two cloakrooms, 24 folding chairs for community meetings, 13 subscriptions to "The Youth's Companion," 2 subscriptions to "St. Nicholas," 2 subscriptions to "The National Geographic," 22 subscriptions to "Current Events," 1 manual training outfit, 1 Bible, 2 footballs, 2 basketballs, 1 croquet set, 2 volley balls, nets, etc.

When organizing parent-teacher associations Mr. Hoffman and I emphasized the value of evening community meetings and the importance of enlisting the support of the men in the community. We attempted to foster the spirit of cooperation by suggestion that group games be a part of every evening community meeting.

As a result of the influence of the teachers and the supervising force, parent-teacher associations in South Hunterdon have been responsible for holding 140 evening community meetings in 19 school buildings. In a few instances, when the school building has been too small, the town hall, or a nearby church, and in one case a large electrically-lighted barn, have been used.

More men have visited our rural schools than ever before in their history. Men have a larger part in the world of affairs at the present time than do women. Men pay the bulk of the taxes; most boards of education are composed of men only.

The numerous evening meetings held this year in rural schools have enlisted the cooperation of the men, have provided much needed social diversion for all members of the community, and have given us an opportunity to advertise the advantages of a high school education; and finally, because she attended 30 of these evening meetings, the helping teacher has been brought into closer touch with many school communities.

Nothing has pleased me more this year than to have the teachers tell me that children have liked a fine phonograph record owned by the school so much that they have first asked that they might take it home and have afterwards reported that their mother had bought that record. This and the following incidents indicate the schools' growth in influence.

At a parent-teacher association held late in the year in a one-room school the teacher, as was her custom, asked the parents if there were any special classes or subjects which they would like to see her teach. Much to her surprise and gratification the mother of a third-grade child made a request that she demonstrate the problem method of teaching upper-grade geography.

At a similar gathering of mothers I was equally surprised to have a mother tell me that as a result of her boy's bringing home one of a set of geographical readers that I had loaned to the school to help in the development of problems in geography she had bought the set, and that the whole family were reading and enjoying the books. This came from a woman who when first asked to join the local parent-teacher association at the organization

meeting rather looked scornful. She explained her attitude by saying that she and her daughter lived on a farm, a two mile walk across fields from the schoolhouse, that they did much of the outside work and had no time to be running to the schoolhouse. Notwithstanding this bad beginning, she never missed a parents' meeting, found time to attend the township festival and to tell me that she hoped I would be able to visit their new teacher often next year. To me this woman represents an extreme type of the change from cold indifference to glowing interest characteristic of the South Hunterdon school public.

Realizing that the interest generated by 35 live parent-teacher associations constitutes a dynamic factor in school progress, we sought to stimulate such interest by planning and holding last year a second annual all-day county meeting in Flemington. To this meeting all the associations in the county were invited to send an unlimited number of delegates.

Miss Metcalf, head of the economics department in the Flemington high school, helped to make the day a delightful and instructive one to the women by having the girls in her department serve them a hot lunch at noon, and by herself demonstrating for the visiting delegates the packing of a tempting and nutritious basket lunch.

A delegate from each association reported progress made during the year by the association. The county nurse talked to the mothers on the health needs of rural children. The President and the Council Organizer of the State Congress of Mothers and Parent-Teacher Associations were present. They gave the delegates a broader vision of the work of the associations and organized a county council of parent-teacher associations.

The series of invaluable community meetings planned and held by Mr. Hoffman with the aid of the department of rural education of Columbia University were full of inspiration for those interested in rural progress. These meetings and the grange which I joined last year served to give me added knowledge of and increased sympathy with the people whom I am endeavoring to serve. This knowledge will be helpful in future community work.—*Maud C. Newbury, Helping Teacher, Hunterdon County.*

Perhaps the most significant work done in Somerset County during the past year was the establishment of a number of parent-teacher associations, the total now in operation being 45. A county council was organized last March.

These associations are educating the several communities in regard to the present situation in education and school procedure. Where supplies are needed for the schools these associations send requests to the boards to furnish the same; and as these requests come from taxpayers in an organized body, they are always effective. The relationship between teachers and the community has been much improved through those associations. Phonographs have been furnished, entertainments given, school grounds improved; in one case a new two-room building was secured; plays and spelling matches for adults were given. We hope to have a parent-teacher association established for every school this year. The work of these associations is only in its incipency. They will accomplish great things in the future.—*Superintendent Henry C. Krebs, Somerset County.*

Many of our parent-teacher associations have taken active measures for the betterment of their schools. One had the stove removed to a better location in the room, floors oiled, the well made safe, outbuildings screened, etc., by having a committee appear before the board and state conditions as they were. Another body of mothers arose in indignation over existing conditions and sent a strong petition to the board to have these conditions changed. Since no committee accompanied the petition, certain explanations which were called for and which might have been given, could not be given and the board made its own criticisms and laid the document aside. These two cases show the necessity of interested persons being present at each meeting of their board to know what is being done, and to petition for that which the school in their particular community needs. We continually hold before the women the idea that it is not only their privilege but their duty to know just what teachers and boards of education are doing for their children, to know how school money is raised and how it is expended; for the time is arriving when they will take their places as school board members—as several have—and also as voters.

The part that the men have taken in the parent-teacher associations is interesting. While professing to have little use for such a "society of women," one man is president; another who insisted that his wife should not hold office took the office himself; about twenty joined at the close of an entertainment given by a parent-teacher association and then voted an \$85 phonograph for the school instead of the \$35 one which the women were thinking of getting. At the close of another entertainment, a member of the board, who had expressed disapproval, joined, paid his dues and took the chairmanship of the play committee.

It seems most essential that members of boards of education should be actively connected with parent-teacher associations, for in a number of instances parents favor consolidation, but certain board members offer objections which might be overcome if there were a chance for free discussion in a general meeting. However, we have a campaign started in several townships, in which we hope by much personal work with individual people of the communities to turn the sentiment in favor of the consolidated school. As I said in my last year's report, one argument we cannot meet is "bad roads," which make transportation unfavorable or impossible in some instances.—*Laura M. Sydenham, Helping Teacher, Somerset County.*

There are seven parent-teacher associations in my territory. Three of them are doing very good work. In one place they have given their school a new upright piano. In another school they are planning to put running water and a drinking fountain, besides the mats, shades, phonograph records, library books, etc., which they have already given this year to their school. The organization is a good one. In every case they are a body which can be called upon in times of emergency and will lend their assistance to put across any movement in the interest of the schools. They were a great help to us in our local community meetings. They also are the sole source for any social life in some of the communities. The people in these out-of-the-way communities do enjoy getting together. They are so pleased to have some one listen to their stories. I laughed until I cried at a snake story told by one of the men up beyond the mountain.—*Margaret E. Taylor, Warren County.*

One of the most satisfying and far reaching branches of the rural educational program is the work of the parent-teacher associations. In many localities the whole social structure is being built around such an organization. Many women have said: "This has been the happiest year I've had; I've looked forward to these monthly meetings so much."

The program of parent-teacher associations usually consists, first, of some of the regular school work such as dramatizations, reading and geography lessons, arithmetic and spelling contests, etc. After the children are dismissed there is the business meeting and discussion of some subject on child welfare which is of special interest to that community. Then there is usually time for some real physical fun such as a physical training drill, a story-play, bat ball, or other games. Home-made cake and coffee or lemonade make a good finish to an enjoyable afternoon. One woman expressed her appreciation this way: "This is the most fun I've had since ma married pa."—*Vera M. Telfer, Helping Teacher, Warren County.*

AMERICANIZATION

One of the problems in American life is the illiterate adult, both foreign born and native American.

It is said that there are 8,000,000 persons in this country above the age of ten years who cannot read or write. Considerably more than 100,000 of these are in New Jersey. The evil is widely recognized. It is one of the disturbing factors in American life which the war uncovered.

In my opinion a law should be passed making it obligatory upon every illiterate person under the age of 21 to go to school at least 200 hours a year, either on school premises or in factories. These persons should be required to attend school until they can read and write and speak English.

It is unnecessary to present extended arguments in favor of this requirement. Illiteracy is the handmaid of Bolshevism. Illiterates do not make good citizens.

The first step in Americanization should be to teach these persons to read, write and speak English. This State should be a one language State and this country should be a one language country.

In any school, public or private, the medium of instruction should be no other language than English. We should have a law to this effect.

In general it is useless to talk about giving a foreigner knowledge of American ideals and American institutions unless we first teach him how to read and write and speak English.

I am informed upon very good authority that the Federal Government will doubtless enact a law giving a subsidy for this purpose to each State which raises an equal amount.

New Jersey is one of the few States in which there are large numbers of ignorant foreigners. The problem is especially acute here.

An appropriation should be made to the Department of Public Instruction to carry on Americanization work within the State.

There should, in my judgment, be a State appropriation to districts for Americanization work. I do not believe the problem of Americanization is a district or town problem, inasmuch as numerous districts in the State have no Americanization problem while other districts have a very large one.

The Americanization problem, is not merely a local one. It is State-wide and nation-wide.

It hardly seems fair to me that districts that have this problem should be without outside aid. I believe that aid should come at present from the State, and eventually from the nation.

Moreover, it will be necessary to spend some money in the training of teachers, and this money should come from the State.

In this connection it is not out of place to refer to the statute enacted in the legislative session of 1919, which reads as follows:

1. In each high school of this State there shall be given a course of study in Community Civics and a course of study in Problems in American Democracy, which courses shall be prescribed by the Commissioner of Education, with the approval of the State Board of Education. The course in Community Civics shall be completed not later than by the end of the second year, and the course in Problems in American Democracy shall be begun not earlier than at the beginning of the third year. The time to be devoted to each of the aforesaid courses shall be at least sixty full hours in periods of at least forty minutes each. The foregoing courses shall be given in all approved and registered high schools and taken by all pupils enrolled in the years in which the subjects are required to be taught as aforesaid.

2. For the elementary grades, a course in the geography, history and civics of New Jersey shall be provided, which course shall be prescribed by the Commissioner of Education, with the approval of the State Board of Education; and the course thus prescribed shall be required in all public elementary schools and shall be taken by all pupils in the grade in which it is given.

3. The courses of study provided for in sections one and two of this act shall begin with the opening of the schools in the year nineteen hundred and twenty, and shall be given together with instruction as to the privileges and responsibilities of citizenship as they relate to community and national welfare with the object of producing the highest type of patriotic citizenship.

This is legislation in the right direction.

HELPING TEACHERS

The helping teachers have continued to demonstrate their usefulness in the rural schools.

Attention is called to the extracts following this article, taken from the annual reports of the helping teachers which were rendered to the Commissioner at the close of the year. If space permitted I should like to print these entire reports, for they make good reading.

There were twenty-four helping teachers employed during the year. These teachers had charge of from twenty to fifty teachers each.

The title of "helping teacher" is a fortunate one, for these women are really helpers to the rural teachers.

In the rural schools are found the young teachers. In the rural schools are found the inexperienced teachers. In the rural schools are found, as a rule, the low salaried teachers. In the rural schools are usually found the teachers who remain in their places only a very brief time—one year or two years. Of course there are exceptions to these statements, but on the whole they are true.

These rural teachers need help at every stage of their work. They need advice and help in the making of their programs, the economical use of their time; the making of their schoolrooms and school premises attractive, and the discipline and conduct of their schools.

They need help in the teaching of reading, the fundamental subject of the school. They need help as to the important matter of keeping the young children busy while the others are reciting. They need help in teaching every subject in the curriculum.

They need a broader outlook as to their relations with parents and boards of education. They need a larger vision of their relations and responsibilities to the community.

It is pleasant to report that the rural teachers, with very rare exceptions, have welcomed eagerly the assistance of these helping teachers, and have been strong in their appreciation of the help they have received.

The waste that ordinarily goes on in many rural schools is great. The helping teacher has come to minimize this waste and to make rural schools an efficient educational agency for the promotion of the intelligence and health of country children.

The helping teachers have so broadened their work that some of them have really become social workers in their communities. They have helped to organize parent-teacher associations. They have

helped to establish school festivals and health clubs. They have encouraged fathers and mothers in social activities. These teachers have enlivened the rural schools.

They have advised boards of education as to the selection of textbooks and school apparatus. They have helped attendance officers and medical inspectors in the performance of their duties.

They have brought about in numerous instances a greater appreciation of the possibilities of rural life. They have made themselves useful in many ways in the communities outside of the schools. They have increased, in my judgment, the value of the rural schools 100 per cent.

Keen observers of country schools have said that the New Jersey helping teacher movement is the greatest means that has been devised in this country for the betterment of rural schools. It should be repeated that these teachers do not work in districts where there are supervising principals, but only with those teachers that are without supervision, and specially with the teachers that most need constructive, helpful supervision.

In all school systems, not only in New Jersey but elsewhere, the children in the country schools as a rule have not received advantages equal to those enjoyed by children in the city schools. In every city school system in New Jersey, and elsewhere as well, it is recognized that supervision of teachers is necessary, and this supervision is usually supplied in generous amounts by local boards of education. Only the country teachers, as a rule, are without supervision, and they are the very teachers who need it most.

The county superintendent cannot render this service. He is too busy with his numerous and perplexing administrative duties to greatly help teachers in service. Moreover, he has too many teachers under his jurisdiction to make supervision effective. He may inspect schools, but it cannot be said with too much emphasis that mere school inspection is not supervision, which means to help teachers in service.

It is true that the county superintendent can call teachers together in meetings, but the days are too few and the hours are too short to permit him to furnish detailed personal supervision in the schools under his jurisdiction.

The duties of the county superintendent have greatly increased of late years. They are far more numerous than they were ten years ago or even five years ago.

We need approximately thirty-five helping teachers altogether.

This number will probably be sufficient to cover the whole State. One of our great outstanding difficulties in securing the ten additional helping teachers needed is the salary available for these teachers.

The salary is fixed by statute at \$1,500, out of which the helping teacher must pay all her own expenses. Most of the helping teachers must provide themselves with automobiles in order to get quickly from school to school. This is expensive. Taking into consideration the original cost of the automobile and its upkeep and depreciation, as well as the other expenses incumbent upon the office, the helping teacher receives not more than \$800. This is an insufficient salary in these times.

The Department has used every effort to add to the staff of helping teachers, but it has been found of late that with the increased cost of living, additional teachers of the kind we require cannot be secured at the meager salary offered.

The helping teacher law was passed in 1913, when the cost of living was very much smaller than at present.

One of the imperative needs of the State is to offer such salaries to these teachers that we can induce the very best women in the teaching service to accept these positions.

During the legislative session of 1919 a bill passed both houses, with a practically unanimous vote, increasing the compensation of these teachers, but it did not receive the Governor's signature, his objection being due, it is fair to say, not to the increase in salary, but to the way in which the bill was worded.

If we are to maintain the helping teacher movement, and consequently maintain and increase the efficiency of the country schools, one of the imperative needs at the coming session of the Legislature is to grant additional salaries to these faithful, efficient women. If we do not do this, the helping teacher movement is bound to break down.

Great credit is due to the helping teachers now in service for their willingness to continue in the work another year—in some cases at personal financial sacrifice. In some instances they accepted re-appointment at the personal solicitation of the Commissioner.

I ask for the careful reading of the extracts from the helping teachers' reports which are appended hereto.

Cora Schaible, Atlantic County—A few weeks ago I reached a one-room school out in the woods before 9 o'clock. A boy of 14 took entire charge of the opening exercises, reading the Bible chapter, leading in the Lord's Prayer,

the flag salute and the songs, and calling upon those pupils in the room whom he had asked to contribute something on his program. . . .

At the beginning of the year many teachers made the teaching of health habits a part of their program, and the roll call for clean hands, nails, teeth and combed hair was made daily. When the health crusade was started by the Anti-Tuberculosis Society the schools in general took up the work as it was presented by that Society. It was the exception rather than the rule to find children who were not making efforts to perform all or a part of the "chores" listed on their score cards. With the teaching of personal habits of health were the lessons on neatness and cleanliness of surroundings, and children have become more active in making their schoolrooms and surroundings more attractive and sanitary places in which they live for several hours in the day.

No other part of our school work has yielded such definite and apparent results as have the efforts spent along this line. I have in mind a boy whom I did not recognize after he began to clean up.

A small school is located on a much used automobile road, and the school yard became a regular picnic ground for travelers, who left it in a condition not at all pleasing to the children who were taking pride in its appearance. This was done especially by the Saturday and Sunday travelers. The last time I passed the school I saw posted in a very conspicuous place a notice (evidently the work of the children) "Please help the school children to keep the yard clean. Use the barrel for garbage." . . .

In some of our teachers' conferences I adopted the "observation school" idea and held our meeting in a graded school, asking the teachers to retain their children and teach certain lessons. My teachers liked this and I found them adapting many ideas that they caught from their observations at those meetings.

Agnes E. Brown, Bergen County—After careful consideration I confined myself to six important steps to be taken up immediately in group teachers' meetings and discussed.

1. Program. Each teacher must have program printed and posted in schoolroom showing time allotment, recitations, etc. Primary grades must have reading first on program. Show 150 minutes a week devoted to physical training.

List of games posted, which have been taught and used indoors and outdoors.

2. Daily planbook. Not in minute detail but enough so it can be read and understood intelligently by visitors.

3. Complete set of state monographs. Each teacher must have a set and use them throughout the year as basis for all work.

4. Seating chart. Try and keep it up to date.

5. Teacher show in some way how he or she is encouraging the spirit of patriotism—sale of War Savings Stamps and Thrift Stamps.

6. Exhibition of pupils' hand and written work in schoolroom every month. Do not select best for show work. Encourage pupils who show good individuality and progress.

7. Blackboard calendar in primary grades and a worth-while quotation in upper grades. . . .

The majority of my schools have taken up the modern Health Crusade work most enthusiastically. Excellent food, posture and health charts have been made by pupils in various schools. I feel this work has been most valuable in the schools. It has been correlated with other school subjects.

Teachers have expressed the most gratitude to me this year for taking them around to visit other schools similar to theirs to make comparisons and observe the teacher's procedure under similar difficulties.

Melvia M. Wormuth, Bergen County—In every school I taught one or two classes at each visit and in the meetings held with my teachers. Teachers were also asked to teach. These lessons were always followed by a conference with the individual teacher or group of teachers.

Two phases I stressed throughout the year—a breaking away from the old time formal teaching and more active teaching for citizenship.

Many schools did excellent work in physical training, but in a general survey I do not think the work as good as last year, due entirely to the lack in ability of teaching.

In all schools we stressed singing. Unusual work was done in the one and two room schools. Our motto was, "Close the day with a song and a smile." Several schools were visited by community leaders from Camp Merritt and all teachers were in touch with songs sung there.

This has been one of the most gratifying results of this year's work. Three-fourths of the boards have consulted me in all phases of school work and have agreed to purchase complete equipment of textbooks and teachers' reference books I have suggested.

I cannot speak too highly of the definite cooperation I have received from the young normal graduates. They came to their work with a zest, and an indefinable something that has been an actual incentive to me in my work.

Caroline B. LeConey, Burlington County—From September to January my aim was to: first, organize and get principals to sense the responsibility of the buildings; second, stimulate the interest of teachers to do better teaching. Later I was able to stress geography and reading methods, health clubs, grading, and bringing of the school and community closer together through meetings on special occasions.

So much do we learn by "being shown how" that next to demonstration teaching at meetings where a number may see and discuss, is the teaching that I, as helping teacher, can do for the individual teacher. Although I did a great deal of this work, I believe I should do more. However, I found that in order to get the teacher to see the big outline of the year I must plan ahead with her, then my demonstration teaching was a definite part of the whole.

In this way I prepared three teachers to have practice teachers from the Trenton Normal. I cannot estimate the amount of influence that these young trained girls had not only on the teachers with whom they worked, but on other teachers in the building, the pupils and the community.

I praise the conference for rural teachers held at the Normal School, and the splendid spirit which Miss Sheppard brought to pupils and teachers as she met them on her visits. This is an excellent contribution from the Normal School. Two of these girls will teach in the county next year.

During Visit-the-Schools Week, the teachers of the Cambridge school decided to hold one evening meeting instead of the all-the-week plan. Most of the people in this section are Polish and the women work in the Riverside mills during the day. The children invited their parents to come to the school to see them in their drills, dances and songs, and also to hear a man who would speak to them in their own tongue.

The result was that the children did better work than I thought they could do. There were 115 parents present, and a young enthusiastic Polish fellow spoke to them about our plan of education, our aims, and better health conditions.

Margaret McLean, Burlington County—My first day's work as a helping teacher was in a new four room consolidated school. The building was new, the consolidation was new, the three teachers present were new. One teacher had never taught, the principal had never been a principal before, and the third had returned to the ranks after an absence of some fifteen years. I unpacked and sorted books, kept the peace in the halls, taught reading for the primary teacher, played with the children at noon, planned programs, made hasty sketches of the work to be covered by various grades, and when not otherwise occupied worked with the children at their desks. . . .

Of the 29 teachers under my care, 23 are untrained, 3 have summer school training, 3 are normal graduates. . . .

The first of my problems was to bring about a better internal organization. The two and three room schools were quite generally using a needlessly rigid system of grading. The teachers were confronted by a very real difficulty. Poor attendance, unsupervised teaching, and the further complication of numbers of children from various kinds of one room schools, had all tended to produce extremely heterogeneous groups, which were divided into grades and often divided again in a vain effort to attain uniformity. These divisions were usually made without regard to the victim's age, feelings or interests. From 5 to 7 years was the usual range of ages in any grade below the fifth. Through conferences the teachers grew to see that the promptings of their native sympathies and good sense are in line with the best educational practice. They cooperated in plans which allowed an individual child to work where he could work best, even though he were "back in arithmetic." The practical working out of this ideal is still far from complete. Progress has been made by arranging programs which allow for longer recitation periods and periods for individual help; by demonstration teaching, showing how children of varying competence can be well taught in the same group—having an individual rather than a general standard of attainment; by stimulating closer study of each child—his limitations and his possibilities—to the end that he may be effectively helped. . . .

The second of my problems has been better teaching of reading—better teaching of mechanics and far better teaching of thought getting. Practically every school had a modern reading test but the primary teachers were with one exception untrained and were getting results fully as poor, in most cases, as if they had been teaching the alphabet. Through conferences, outlines and much demonstration teaching, and above all through the alertness and willingness of these teachers, there has been much improvement. The best of them are coming back next year and we are planning to have at least one series of supplementary readers, and in some cases, two. . . .

The fourth of my larger problems was the better teaching of physical training. I found practically every teacher accepting—although with needless melancholy—the necessity of teaching physical training for the prescribed time, and this fact was a big help. It remained to make the work follow in spirit, scope, and method the provisions of the state monograph. It was uphill work. A visit from Miss Packer was a great help, particularly in forming my own standards. In May we had a field day which, in spite of the fact that no one of us had ever seen one before, was a success. It went off well, the children had a beautiful time, and the teachers realized as never before that the physical training law is an asset, not a liability. They have expressed a great deal of interest in the coming year's work.

In addition to the foregoing, I have helped from time to time by conferences, demonstration teaching, reference material, etc., with every subject in the curriculum and also with problems in discipline; conferred with members of two boards of education on the choice of teachers, chose about \$300 worth of supplies which were purchased and used for this year's work; made suggestive lists, based upon complete inventories, of books and supplies needed in each of my eight townships for the coming year; helped to organize three home and school associations; cooperated in the county field day and the county spelling contest. . . .

The biggest problem for next year, in my judgment, is the development of community interest in the schools. The field seems unpromising, but it has to be done, for there lies the chance to harness the one permanent force in the situation. Better attendance is an acute problem which is tied up with the community attitude, and so is better medical inspection. Better equipment is in sight and so are better teachers; approximately 50 per cent of my teachers next year will be trained as against 22 per cent this year. There are some interesting curriculum problems, the most pressing of which is to organize for classroom use the local history and geography material in which this county is so rich. ,

Alice R. Shreve, Burlington County—In making a general survey of the work for the year, it is found that the helping teacher's first aim was to show the teachers what our state monographs are for. Some of the teachers aimlessly turned the pages and received no benefit therefrom. At the close of the first half of the school year the teachers checked up the work already covered by each class in each subject as suggested in the monographs. The helping teacher went over those outlines with the teachers on her next visit. In this way the teachers were aided to discover the wealth of material suitable for children. Previously the helping teacher had found some of the pupils working at tasks far beyond their interests and powers, others killing time. In many instances, after answering the questions asked by teachers, the helping teacher turned to the monographs and showed them in print just what she had been expressing orally. She planned and had the teachers plan lessons, according to the standardized lessons in the monograph. Some of the teachers discovered the great value of previously planning for their work and using much outside material. . . .

Problem teaching has been used as an aim for the cure of from page to page assignments without natural connection. After listening to a recitation of memory work for some time the helping teacher would try to wake up the

class with a problem which would be discussed for awhile. The teacher and helping teacher would discuss the problem as to reference materials and, over night, plan out the problem for a period of five or six lessons, attempting to cover the important points in the text. In some cases the helping teacher returned for the summary of the facts taught and helped the teacher begin a new problem. The younger teachers were especially enthusiastic in attempts of problem teaching. Group meetings for demonstration work were held in the buildings where the handwork of the best project teaching was visible. Many copies of the handwork were made by visiting teachers. The cases of exhibits lent by the conservation department helped the pupils with the gathering of information from texts, maps, pictures and source materials. The teachers who had previously used the case were anxious to share with the teacher to whom the case was to be sent the materials which her pupils had found especially interesting in connection with the exhibits in that particular case. There was more pupil activity in this type of work and less of the teacher reciting the assigned lesson. . . .

During Visit-the-Schools Week the teachers tried to have parents visit the school during school hours. The greatest result visible was that one influential father decided that better teachers and school conditions must be had in his local school this coming year, and he has seen that such is to be the case. The pupils in ten of the twenty-one buildings planted trees and shrubbery on Arbor Day. All the schools observed the day by cleaning up the school grounds.

Helen A. Ameisen, Camden County—The school year 1918-19 was opened by a teachers' meeting on Friday, August 30, at which the plan of work for the year was presented and the routine of school management was discussed and explained for the benefit of new teachers in a group of 43 experienced teachers, 6 beginning teachers, 4 war emergency teachers and 11 substitutes.

. . . .
Greatest effort was concentrated on the improvement in teaching. Much demonstration teaching was done, as that seems to be the easier way of getting results, if followed by conferences. The county superintendent visited the schools in company with the helping teacher and advised what courses to pursue. Formal and informal meetings were held to discuss the teaching of geography and sixth grade history, about which many questions were asked. . . .

At the end of the school year we find our schools being used as social centers to a large degree—in many cases the school affording the only entertainments. There have been a great improvement in public health, due to physical training, health clubs and the health propaganda spread by the schools, with corresponding improvement in physical conditions of the school cleanliness, housekeeping and clean toilets; marked development of all forms of social service work, stimulated by war activities and now carrying on, because people have become acquainted; great realization by teachers of the force and power of teaching in making future citizens, and greater ambition to prove equal to the trust recognized by public endorsement of higher wages.

Roxana S. Gandy, Camden County—On the Saturday preceding the opening of schools, in September, we held a first meeting of teachers new to the county, in the county superintendent's office, and at this time, in addition to getting acquainted with these teachers, we discussed the possibilities of the first day of school. I considered it not only my duty, but indeed a privilege, to give these teachers the benefit of what I counted a successful first day in school in my own experience. Then we worked out together what we thought might be a very worth-while program for a first day. We began with the morning exercises, including greetings, the morning talk, the singing, which might well be such war time songs as had been learned and which were general favorites, the flag salute and the devotional exercises. . . .

I have the assurance that these suggestions were well received and as well carried out, for later on, in these same schools, when I would ask the children to tell me of their first day, they would respond in a manner which indicated that their first day had been a very happy one. This in itself was very gratifying to me, and I felt that our early meeting in the county superintendent's office had not been in vain. . . .

At my suggestion, during the week before Christmas, the children gathered greens, holly, cedar, running pine, etc., and made wreaths and crosses for both the army and navy hospitals. Approximately 500 wreaths were made and received at the hospitals in time for day-before-Christmas decoration. When I could tell the children later on of passing the hospital and seeing a wreath hanging in each sick soldier's room, there was truly a splendid reaction. . . .

I shall not soon forget the expression upon one teacher's face when I asked him if he thought his class, a grammar grade group, would like jokes. To say the least, it was not very encouraging, and I read in it that he thought the grammar grade period, as it was called on his schedule, could be more profitably spent in teaching conjugations or other formal grammar. However, I suggested in getting a hearing and tried out two or three of my stock of jokes. When I felt I had taken my full share of time, but before I had really finished, there were hands up, eyes twinkling and every indication that I had stirred up something, at least with the children. They were now ready with *their* jokes, these same children who up to this time were considered almost impossible in either oral or written composition. It was a real pleasure to see how they enjoyed telling their jokes. It was the beginning of studying the English of everyday life. The newspaper and the magazine became for them storehouses of information, and by the close of the year this same teacher was getting results in both oral and written English such as he would not have dreamed of getting at the beginning of the year.

Nella H. Cole, Cumberland County—At the beginning of the school year two teachers' meetings were held, the helping teachers each having one in charge. Mr. Unger divided his time between the two. At these meetings special emphasis was laid on program making and primary reading and type programs were given to each teacher. We also subjected the teachers to a brief questionnaire, which included such questions as, "In what ways are you going to try to improve your school work this year? How can the helping teacher help you most? How are you planning to improve yourself professionally this year?" This meeting, coming as it did at the very beginning, helped to start the year aright for all of us.

During the first two weeks of school I made a general survey of my territory by visiting each teacher, and in this time I learned many things, not the least of which were roads. Of course I could only spend a few minutes in each room but those few minutes gave me a fair idea of the problems confronting that teacher. I compared my notes about the needs of the teachers as I saw them with the answers to the questionnaire which we had received at the meeting, and to a surprising degree the needs of the teacher as seen by herself and by the helping teacher agreed. During the rest of the month I visited for a second time those teachers who needed help most. These were especially the girls who were just beginning to teach and who needed help with their individual programs and in the general organization of their school. This help I gave first always, feeling that no good teaching could be accomplished until that part of their work was well understood. In addition I emphasized as much as possible the primary reading, usually by teaching some phase of the subject to the class. . . .

Soon after Christmas we gave the Monroe silent reading tests to all children above third grade and in almost every school too large a percentage fell below the standard. We sent statements to each teacher showing how her children compared with other children in the county and with the standard. Then, their eyes thus being opened, came requests for help in silent reading and I taught many silent reading classes. Again we held a teachers' meeting in each district and had model silent reading lessons given as demonstrations. When we gave the tests late in the school year the children showed marked improvement and the teachers invariably reported better work in geography and history. . . .

In order to make the hygiene teaching more effective and civic training an active and working subject we organized health and civic clubs in all one and two room schools. The plan for the club was Miss Mackay's idea. After the clubs were well started we had reports of the work given at teachers' meetings and the larger schools asked for the privilege of organizing, which of course was granted. The results have been apparent in cleaner children, cleaner textbooks and cleaner schoolrooms. The responsibility which the children assumed helped to develop leadership. The fact that all the children had to conform to rules under the leadership of captains which they themselves elected was good training in citizenship. The rivalry between teams for the highest score was healthful in spirit as well as productive of clean bodies. The small captain rounding up the members of her team to be sure they were properly clean as to face and hands before the bell rang was an interesting sight, and produced a clean looking class and cleaner books, and it only temporarily disturbed the children. The rivalry between the schools for the banner which was awarded each month to the school scoring the highest number of points was stimulating and in some cases resulted in better attendance records. During the coming year the club work will be carried on in all our schools, since its experimental stage is passed and there is no doubt as to its effectiveness. . . .

One of the great disadvantages under which the teachers have worked was the lack of material for reference and seat work. With this in mind I received permission from the clerks of the boards of education to have the teachers send their list of supplies needed for another year to me. I have checked these lists, have recommended books needed, and have especially

asked for seat work supplies and reference books. Then I have attended the regular meetings of the boards wherever possible and have presented my lists with my reasons for asking for the supplies and my requests have been granted. In two cases I gave my lists to the clerks of the boards and they have promised to do their best to get the things asked for. Throughout the year I have preached conservation of supplies with special reference to paper, both to teachers and to pupils, and I have suggested some changes in the matter of purchases to the boards which I believe will remedy the matter a little. In one township the books were in a dilapidated state and some were unfit to be used from a sanitary standpoint. I told the board of education about this condition and they suggested that I go through the books in all the schools and discard those which I considered unfit to be used. I did this and in each school found a splendid opportunity to start the children cleaning up and repairing some of the books not too badly worn. I am sure this clean-up campaign gave the children a new respect for those books and for the new ones which they received. I wish all my sermons might be as effective as those given at that time. . . .

Still another need keenly felt here is a lack of professional training on the part of so many of the teachers. Altogether too large a percentage have no normal school experience. Perhaps in many cases there is an indifferent attitude on the part of the teachers toward this training, but if we might have some extension work carried on by the normal schools and a method whereby the student might obtain credit toward a normal school diploma when the extension courses were successfully completed I believe many teachers would avail themselves of the opportunity thus offered and it would result in better teaching and better schools, and the normal schools would also be benefited thereby.

Jean F. Mackay, Cumberland County—Early in September we held a series of small group meetings in the various townships. The special topics taken up at these meetings were primary reading, geography and seat work. We had been very fortunate in having up-to-date basal readers placed in all the schools but this situation made necessary a new method for the old teachers as well as the new ones. However, we were able to find a capable teacher to give a demonstration lesson with her class. This proved to be a basis for discussion in which the teachers took part freely, asking many questions about the method of presentation, amount of drill work necessary, and other details. We then reviewed the manual for the particular method under discussion and pointed out to the teachers certain things which were especially valuable and important. The topics of primary geography and seat work were talked over with the teachers and many suggestions offered.

I found very gratifying results of these meetings as I visited the schools later. The teachers had a very good understanding of the reading method, and pupils at their seats were busy with profitable work. Six such series of group meetings were held during the year, which I am sure were among the best ways of helping. . . .

A new feature of Miss Cole's work and my own this year was the introduction of health and civic club work in our one and two room schools. Our reason for beginning in these schools was not because they needed this kind of work more than the larger schools, but our plan was to try it as an ex-

periment on a small scale and if successful we could enlarge upon it. Our plan of work covered the essential habits of good health and the improvement of surroundings. We were more than pleased with the way in which the teachers and children showed their enthusiasm in this work. The appearance of the children, schoolrooms and school grounds all showed a marked improvement a very short time after these clubs were formed. In order to add interest to the work certain score points were given for performing various duties of the club. At the end of each month a banner was given to the school having the highest score for that month. Much interest was taken in the winning of the banner as well as pride in their school surroundings. The plan has been successful and we hope to interest all the schools in this work next year. . . .

We have tried during this year to arouse community interest in the schools and have met with a very good response. In several of the one-room schools the teachers and parents have arranged social evenings in the school building, which were well attended and enjoyed by all. Refreshments were sold and money raised to purchase equipment for the schools. Phonographs, records, basket balls and rope swings were purchased and have been much enjoyed by the children. There are but seven schools in my entire district which have not as yet purchased phonographs. I am sure that through these social gatherings the parents have become more interested in these schools.

H. Ethel Newton, Essex County—Along with the reading and physical training work I have tried to stress the teacher's preparation before the school session. Too many teachers seem to feel perfectly competent to teach anything whatsoever by merely opening a book at the beginning of the recitation period. I have tried to make clear that an elaborate plan book was not necessary. A simple statement of what was to be taught during the day was the chief requirement. I also aimed to show the importance of a plan book written up for a week in advance in order that unexpected illness or absence on the part of the teacher might leave her class well provided for. . . .

One thing which I aimed to put across rather indirectly was the idea of a cheerful and homelike classroom. Joy and work should go hand in hand but small joy can be felt in work attempted in a bare or an untidy schoolroom. This was attempted in varied ways—by contributing pictures, sometimes taken from magazines; by the use of small seals and stars as decorations for excellent papers to be hung around the classroom; oak tag charts for war drives, etc.; and last, but chief of all, the installing of good housekeeping principles. Soap and water applied to desks and seats did much to help the work along. In one school where I made it a practice of frequently teaching a new game, our school grounds were put in excellent condition by a race between two divisions to see which side could collect the greatest quantity of papers, etc., from the school property in a given time.

Katherine L. Smith, Gloucester County—The value of a well planned daily program and the essentials of such a program were discussed and copies of suggestive ones suitable for the individual types of schools were presented to the teachers. In addition to this, much individual help was given, especially to beginning teachers, in establishing programs to fit different conditions. The time spent with these teachers in assisting them in getting started, so

to speak, varied according to conditions, but as many as three to five days were spent with some before I felt sure that a systematic routine of work was established in a well ordered room. A copy of each program was posted in a prominent place in each schoolroom and a duplicate copy filed with the helping teacher. . . .

Primary language has at last found a place on every program, and grammars of the old type have been discarded for the use of the monograph on English and more practical textbooks in English. War activities have furnished motives for letter writing and composition and much interest has been aroused in letter writing through the plan of having the pupils of our schools correspond with pupils of the same age and grade in South Carolina, Pennsylvania and Massachusetts. This plan, in addition to supplying a real motive for writing letters, has caused many interesting discussions, which have developed from some of the expressions used in the letters. The teachers have been encouraged to give training in writing business letters by having the children order supplies from the board of education and send all reports to the county superintendent and helping teacher.

Jennie M. Haver, Hunterdon County—During the past year the following lines of work were emphasized:

1. Improvement of teachers in service.
2. Motivation of school work.
3. Conservation of health of school children.
4. Continuation of war and post-war work.
5. Cooperation between parents and schools.

During the past year 55 teachers were visited. Of this number, 16 were new to their work—6 being June graduates of the state normal schools; 2 were high school girls with one summer school course; and 8 had war emergency certificates and almost no qualifications for teaching. . . .

The school visit, teachers' meetings, the Saturday extension class, and the Rural School Council were the principal means used by the helping teacher to improve the teacher's work in school. . . .

In visiting schools the practice of the helping teacher has been to observe the work of the regular teacher part of the time, and teach at least one demonstration lesson. After observing lessons the assistance given was positive, constructive, and sympathetic. The demonstration lesson which usually followed was a concrete illustration of the educational principles discussed. If necessary, a second conference was held with the teacher after school to emphasize the principles underlying the recitation. This type of work formed one of the most successful ways of securing better classroom instruction. . . .

Some of the problems demonstrated concretely in the classroom during the morning and discussed in the afternoon conference were: motivation of primary reading, problem method of teaching geography, motivation of history, problem method of teaching community civics, correlation of handwork with other school subjects, preparation of a hot school lunch, war and community problems used as a basis for school work, school festival—a motive for better school work in all subjects. . . .

Thrift was taught in the schools and did much to vitalize the regular school work. The children were taught how to keep healthy. They learned in many instances to work more efficiently. They were taught how to save time,

energy, money and materials. Many of their arithmetic lessons consisted of problems showing how to spend money wisely and invest money intelligently.

This type of school work actually functioned in the lives of the pupils. School pencils, paper and books were cared for as never before. An effort was made to conserve both shoes and clothing. More interest was taken in garden making and in canning and agricultural clubs.

Because of their work in thrift, in home and at school, the country boys and girls of North Hunterdon were able to purchase \$2,555.13 worth of thrift and war saving stamps, and invest \$3,750 in liberty bonds.

Most of the rural schools had organized Junior Red Cross societies and many of them did excellent work. Over \$200 was raised for the Red Cross fund and the following articles were made: 594 hemmed handkerchiefs, 31 knitted washcloths, 2 pillows, 6 knitted afghans, 20 small quilts, 50 scrap books, 45 infant garments, 6 knitted sweaters, 23 refugee garments, 300 property bags. . . .

All the teachers have regular periods for physical training drills and supervised play. A summary of a questionnaire sent out at the end of the school year shows that 99 per cent of the pupils are in the habit of practicing at least three physical training exercises a day, and that 85 per cent of them have improved in their sitting and standing posture.

A recent advertisement says, "If you want something to last one hundred years go plant a tree. If you want something to last one thousand years go plant a habit in a child."

The formation of wholesome health habits is one of the most important phases of physical education and frequently the most neglected.

Special emphasis has been placed on this work for the past two years. The Hunterdon County Health Club was organized in 1917-18 and revised and used again this year. The success of the health club plan was so assured after its initial year's work in the rural schools that the larger schools of the county adopted it as part of their health program this year. Calls for the club plan have come from other counties in New Jersey, from state normal schools, from Columbia College and from six States. Educators and missionaries have carried it with them to New Zealand and China.

The health club plan is simple enough for the most inexperienced teacher to follow. It has proved during the past two years to be a most interesting stimulus for improvement on the part of both teachers and pupils, and most encouraging of all, is beginning to influence the adults in the homes.

Miss Vera A. Houston, a public health nurse working in the county, reports a very wholesome interest in the club work. She says:

"While visiting homes in the rural districts around Clinton I have talked with a great many mothers concerning the health clubs which are carried on in the schools, and practically all feel the club has been very beneficial to their children, especially in connection with teeth, finger nails, and tea and coffee. Mothers report that brothers and sisters remind each other of their health club record when neglecting their personal duties. One child was said to have cried when his mother would not open the windows at night, but at that time covers were scarce.

"A man whose wife was dead told me that his little boy came home from school and said his teacher had taught the children that tea and coffee were

harmful to them so he decided if they were harmful to the children they would not do him any good, therefore the family at present are drinking cocoa.

"It is getting to be a rare occasion to find school children who do not own toothbrushes, and I feel they are used quite regularly as the teeth show the neglect very quickly. The reason given by a little girl for not owning a toothbrush was that the school from which she had just moved did not have a health club, but her father is going to get her a brush as soon as he goes to town.

"There is not the slightest doubt but that the health clubs have been the cause of remarkable advancement in the bettering of the personal hygiene of the school children."

The daily health inspection, with its number of points to be gained for the individual and the school, formed a direct motive for improvement in desirable health habits. Hundreds of county health club certificates were awarded at the township school festivals to children who had earned a general average of 75 per cent in their daily club work. The record of the county work is shown in the following graph, which is based on the reports of 1,750 children who have been active club members during the past two years. There are now 3,000 members in the rural schools.

The health club has been of great civic value to the children. Pupils took kindly to their responsibilities as health officers, and in most cases did very effective work. Schoolrooms were cleaned, and in many ways made more sanitary. Sweeping the schoolroom, washing windows, and keeping the school ground clean soon became a longed-for privilege instead of an irksome duty occasionally thrust upon the pupils by an overworn teacher. Outbuildings were kept in a cleaner condition. There were fewer disturbances on the school grounds during playtime because the pupils felt directly responsible for good order.

Seats and desks were readjusted in a number of cases to help the children improve in posture. Two schools bought modern chair desks.

Hot lunches were introduced as a health measure in 18 rural schools, 11 in the southern part of the county and 7 in the northern part.

The work of the health club taken as a whole has done much to promote in children of the first eight grades an enthusiastic interest in the improvement of their own health habits. It has given them higher ideals of health, efficiency and service. It is living up to its purpose, which is to make Hunterdon County boys and girls, *healthy, clean, happy citizens*.

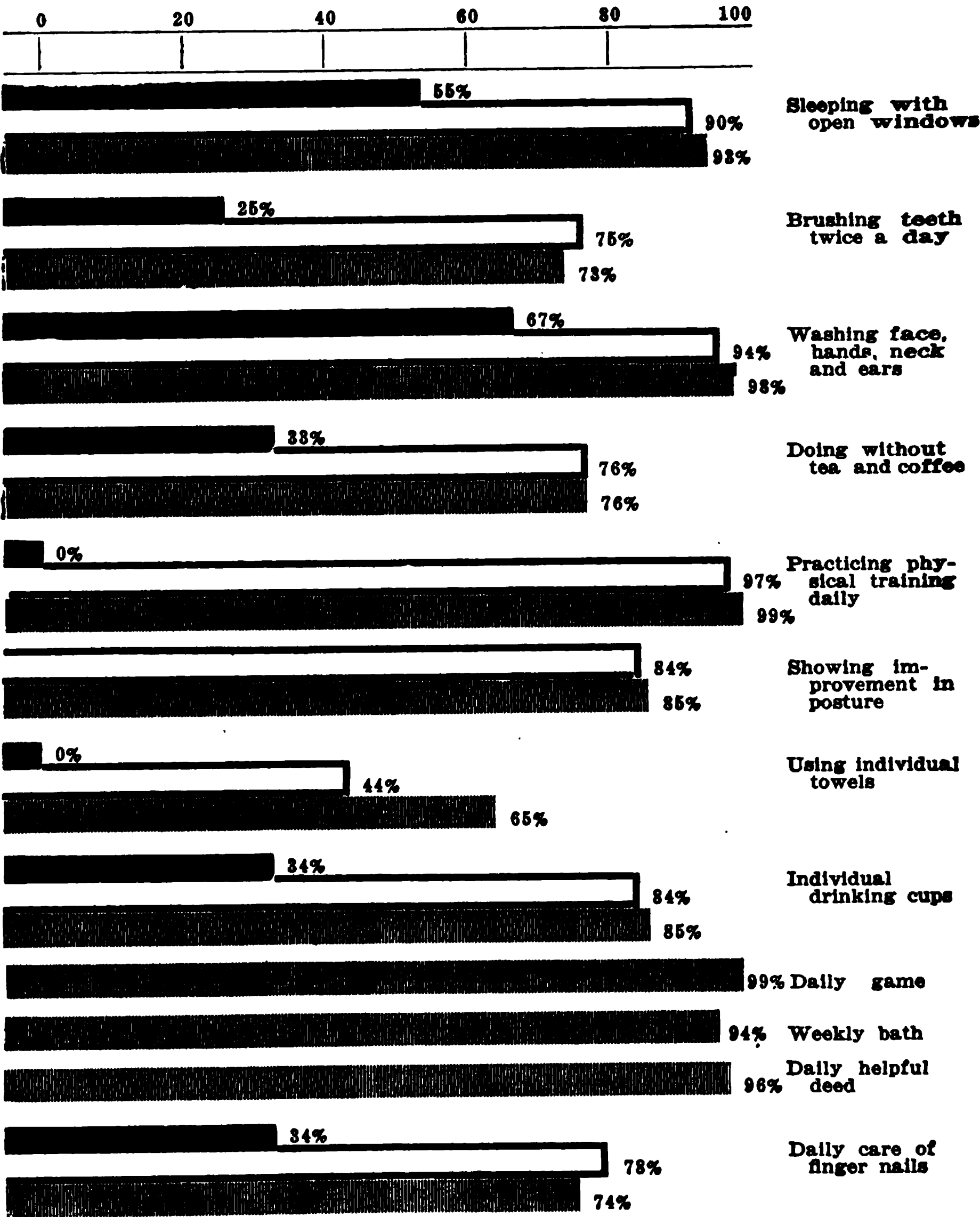
The Rural School Council, organized in December, 1917, was continued this year. The members of the council are the superintendent, the two helping teachers, and one representative elected by the teachers of each township. This democratic organization provides an unusual means of growth for the leaders of each township. They feel that the rural school problem is their problem.

The following program was adopted this year:

- A. Improve school attendance
 - 1. By making school work more worth while
 - 2. By enlisting the cooperation of parents
 - 3. By emphasizing school club work
- B. Enlist the interest of parents
 - 1. By inviting them to see regular school work

SCHOOL REPORT.

HUNTERDON COUNTY HEALTH CLUB REPORT



Key to Graph

	Before Health Club
	Year 1917-18
	Year 1918-19

2. By bringing the needs of the school to their attention
3. By organizing parent-teacher associations
- C. Enlist township cooperation by means of a school festival, features of which shall be
 1. An exhibit from each school
 2. Demonstration of regular school work
 3. An athletic contest
 4. A pageant
 5. Talks on rural school improvement

Maud C. Newbury, Hunterdon County—In contrast to 21 changes in the teaching force last year I found but 7 new teachers on my list when I returned in the fall. . . . Changes in the teaching force for 1917-18 represented 41 per cent of the whole group; for 1918-19 the changes represented but 18 per cent of the teachers in the rural schools of South Hunterdon. The outlook for 1919-20 is yet more encouraging. Teachers in one-room schools in May and June refused offers from nearby towns and cities ranging in salary from \$800 to \$1,000. This registers a tremendous gain. A leading factor in making the training of rural children crude and meager has been the constantly changing army of beginning teachers, most of whom had little training, all of whom were without necessary acquired skill in methods of teaching, and in the difficult task of managing a one-room school. Confronted by the possibility of frequent changes in the teaching force, which would mean for me constantly starting out and never getting anywhere in terms of my goal—a corps of skilled teachers capable of winning community support for schools of a progressive type—I faced the problem and have I believe discovered factors in its solution. . . .

Awakened community interest in schools has led communities to place an increased valuation upon the teacher. Three years ago teachers in one-room schools received as little as \$437 a year; the average salary in South Hunterdon was less than \$500. In May, or early in June, all except one of the township boards in this section had decided upon teachers' salaries for next year. Salaries in one-room schools range from \$750 to \$950. Only three teachers will receive as little as \$750. This increase is the result of the expenditure of much energy on the part of the county superintendent and helping teacher. I interviewed fourteen board members individually, climbed fences, walked miles over plowed fields, fairly pursued them in an effort to hold or secure good teachers for our schools. After exhausting days at township festivals we attended board meetings held late in the evening and waxed eloquent over the need for increased salaries. As a result, not one teacher is leaving us to secure a larger salary.

Lack of proper supplies help to make most rural schools uninteresting to both the children and the teacher. Uninteresting books and few of them and no seat work material with which the little people can be kept busy and happy make a one-room school either a deadly dull place or else such a lively one that discipline becomes a burden to the teacher. The problem of educating boards of education to a willingness to spend money for sufficient supplies and then getting the supplies ordered and delivered in time to yield a hundred instead of a fifty per cent value is a big one. Supplies needed in September frequently do not reach the schools until midyear. I have spent much time

and energy during the past year solving this problem. In June, 1918, I sent a list of supplies needed by the rural schools of South Hunterdon to the district clerks of this section. When I returned in the fall I found that but one board had delivered the books and supplies asked for. I went to the schools of this one township, made a new list of books needed because of the entrance of new pupils, sent it to the district clerk of the township, and delivered the books when they arrived. Then I went to see the district clerks of the other townships, explained the need of having supplies delivered early in the school year, and volunteered in two townships to order and deliver the books. Finally after much interviewing, telephoning, writing and carting of books and supplies I had the satisfaction of knowing that the majority of my schools had at least two interesting readers for every child and that there were from three to five sets of supplementary readers available for children in primary grades in four of my six townships; that every school was supplied with the new sixth grade histories, with modern geographies, civics, arithmetics, language texts, and desk copies of books that would enable the teacher to follow the new history and geography monograph; that 80 per cent of the schools were supplied with scissors, crayolas, drawing and construction paper, plasticine, phonic and word builders, colored sticks, and such other seat work material as would make it possible for teachers to encourage habits of industry. In June, 1919, I again sent in to district clerks individual and summarized lists. I have been assured that the supplies will be delivered by the first day of school in three-fourths of the schools. Our success, for my efforts have but served to supplement the teachers' efforts, has been the result of a hammering campaign. . . .

The Rural School Council, organized in the fall of 1917 and reorganized in the fall of 1918, surrounds the teacher with an atmosphere of democracy. It spells fraternity and equality. Good teachers possess more generally than people in many other professions qualities of leadership. These qualities are recognized and fostered by use in the Council. Supervisory plans are submitted to representatives elected by the teachers before they are put into operation. They are modified in response to suggestions from the council. . . .

Teachers worth holding in any community are eager to grow, to broaden their vision, to shape finer ideals, to improve their technique. I believe that a very big factor in holding good teachers in South Hunterdon has been the opportunity for growth provided by the county superintendent and helping teacher. The Rural School Council, the organization of parent-teacher associations and the encouragement of evening community center work have already been suggested as sources for growth in leadership. Growth in methods of teaching and in professional spirit were provided by demonstration teaching and constructive criticism given on individual visits, by group meetings, by courses given in the Saturday Extension School, by outlining and encouraging the teachers to work out in detail and present at the township festival an historical pageant.

The helping teachers' plan for the teachers' growth in 1918-19 began in May, 1918. I made a survey of my schools for the purpose of determining needed supplies and to locate problems common to all the schools. Every school would have, I found, a sixth grade group. This fact, combined with the impact of world thinking and world needs, created in my mind a vision

School Number 7—Bayonne

New High School at Morristown



of training children for a fine, broad type of citizenship. . . . This vision led to the formulation of the following plan: to use the history and geography courses to create attitudes of indebtedness to European peoples and to lead to such an understanding of the reasons for the existing needs of such peoples as would make children want to save food and to sacrifice some of their pleasure in order to contribute to the many war activities; to provide for the introduction of good music, good current literature and more library books, to emphasize handwork, stimulate a greater love for games and so provide for the leisure side of good citizenship, furnish ideals and knowledge that would serve as guides to action and lead to habits of industry and cooperation; to introduce in the schools the serving of one hot dish at noon not alone for the physical welfare of the rural children but also to provide the machinery that would enable the teachers to supervise the formation of habits of thrift, industry, cleanliness, cooperation, and service to the group; to emphasize pupil leadership in games, in morning exercises, in three minute physical training drills, in health and language club work, and in throwing the responsibility for the management of the dramatization of stories in reading upon the children; to insure to every child in South Hunterdon of sixth grade maturity, no matter how poor the instruction he may have received, at least a minimum of the attitudes implied in the foregoing plan, and to make parents partners in such attitudes by leading the children to present at the township festival an historical pageant. The course of study outlined by the State Department for the sixth grade and the supplementary suggestions advising us early in the school year to relate instruction in the schools to the world situation supported the plan that I wished to promote. The suggestions mailed us by the Commissioner of Education gave authority for combining sixth, seventh, and eighth grade groups in one-room schools and studying all geography and history for at least half a year from the European angle. The foregoing plan, some details of which were worked out in summer school, has served to give unity during the past year to my efforts for promoting the growth of the forty-four teachers with whom it is my privilege to cooperate for improvement in the training of rural children. . . . The Saturday Extension School idea conceived in the spring of 1918 promises one solution for the problem of teacher growth in rural communities. It virtually doubles the rural teacher's opportunity for growth. Last year the school met on alternate Saturdays in the Flemington High School building. Nineteen teachers were in attendance upon the courses, which included "Handwork in the Rural School," "Hot Lunches in the Rural School," "Musical Appreciation," and "Problem Geography." . . .

As a result of the Extension School courses 10 schools in my section secured hot lunch equipment and served a hot dish at noontime last year; 8 purchased phonographs, 19 bought high class records, and in 15 schools quality rather than volume in music received attention; 25 children from one-room schools were encouraged to take instruction intended to help them to become leaders of singing in their own schools; handwork received greater attention in 15 schools; 21 teachers with varying degrees of success used the problem method of teaching. . . . The Rural School Council, when the Extension School plan was presented to it, voted to have the teachers pay a small fee for the courses. The Council thought it would lend dignity to the work, give it an increased worth, and at the same time give the teachers a sense of

independence. Consequently \$8 for the four courses was fixed by the Council as a fee. . . .

Much of my work in individual visits correlated with the Extension School work. In September, in addition to following up organization of classes, programs, the teaching of reading and composition, and the question of the delivery of supplies, I developed in each school visited a problem in geography and suggested to the teacher other problems closely related to or growing out of the problem developed by me. My purpose in doing this was to make the teacher feel the need of the courses in the Extension School. On subsequent visits, especially to those doing Saturday work, I observed geography lessons, or demonstrated the problem method of teaching. On my individual visits I was careful not to push problem work too far with those not doing Saturday work, but stimulated the more promising ones by holding group meetings at their schools. Then during the period when a teacher was eager for help in appearing well before members of her own group I visited her several times, emphasizing on each visit the problem method of teaching geography. . . . Always following such teaching I held a conference with the teacher and discussed the principles that guided my method. Many of the problems studied emphasized attitudes toward European peoples. Such lessons began with a study of war posters and ended in the saving of food, coal, and money by school children. . . .

A third important factor in the growth of teachers was the group meeting. We held ten such meetings, in which demonstration teaching followed by discussion was a prominent feature. As soon as one teacher in a township had the serving of a hot dish at lunch time going smoothly and showed some skill in developing a problem in geography we held an all-day teachers meeting at her school as a recognition of her success and to encourage other teachers to emulate her. At these meetings leadership in morning exercises, of which singing and phonograph music were a part, leadership in language and playground games, three-minute drills, and the dramatization of reading played a conspicuous part. The local teacher demonstrated the teaching of problem geography in the fourth and sixth grades. The helping teacher demonstrated the problem method of teaching history. Upper grade children served hot chocolate and creamed potatoes to visiting teachers. Two such meetings were held in each township. At all meetings leadership and problem work in geography and history were emphasized. The helping teacher, at meetings which did not include members of the Extension School, endeavored to lead the teachers to an appreciation of the basic principles underlying the problem method of teaching. At meetings at which a number of Extension School students were present the helping teacher followed the problem method in developing an appreciation of the work observed. . . .

Another phase of the year's work that has provided for teacher growth has been the historical pageant, a feature of every township festival. The pageant was based on the sixth grade course in history supplemented by fourth and upper grade history. It was called "The Gift of Nations," and its object was to summarize and make concrete the history work of the year; to provide motivation for composition, handwork, the learning of folk games; to create an intelligent appreciation of the relation of our own people to the peoples of other countries; to consolidate school sentiment by leading the various school communities, parents, children and teachers to unite in a com-

mon activity; to stimulate the growth of teachers by leading them into a situation where they would be forced to use the problem and dramatization methods of teaching history, and where they would be impressed with the value of *use* as a method of assimilating knowledge; to blaze the trail toward a higher type of history teaching for succeeding years, and to impress parents with the worth-whileness of the school by having the children make a parade of knowledge gained there. Some of these objects were I believe accomplished at all of the township festivals at which pageants were given. . . .

Love of approval and the desire to do as well or better than others is responsible for the putting forth of much of the energy expended by human beings. Knowing this we held township festivals in the spring of 1918, not alone to create and consolidate school interest, but to motivate the work of both pupils and teachers. We used the township festival last spring to stimulate growth not alone in methods of teaching history, but in hygiene, language, public speaking, spelling, rapid calculation and athletics. At these festivals the county superintendent presented ribbons and money prizes, or just ribbons, contributed by boards of education or by parent-teacher associations, to those winning first and second honors in spelling, rapid calculation, four minute speeches, and athletic contests. He awarded certificates of honor to all pupils who made a Health Club average during the year of 75 and to all pupils who had earned 150 Better Language Club credits. To eighth grade pupils making 150 credits B. L. C. pins were awarded. Both the Health and Better Language Clubs have led to much development in interest on the part of the teachers and children. . . .

Although there has been a marked increase in high school attendance in recent years, many parents are not yet aware of the importance of high school training for their children. During two previous years I have talked to every child of high school age in the rural schools about the desirability of his entering high school. I have also talked to parents on the subject. An indifferent parent is often responsible for a child indifferent to educational opportunities. Last year Mr. Hoffman and I decided to demonstrate to parents in rural communities the opportunities which the local high schools offered their children. We had a conference with the high school principal, with the heads of the home economics, agricultural, and music departments in the Flemington High School. All of them showed a fine readiness to cooperate with us in carrying out our demonstration idea. The principal made our plan known to the student body. He explained that we wanted debating teams, glee clubs, and Babcock milk tester demonstrators to contribute entertainments and instruction at rural evening community meetings; that we were desirous that high school pupils in their local communities take part in providing short plays, lead in games, and contribute in any way possible to the value and success of evening meetings held in rural school-houses. The high school pupils were enthusiastic. As a result, debating teams, glee clubs, and demonstrators of the milk tester have taken part in evening community meetings. The heads of the agricultural, home economics and music departments have spoken at eight such meetings. High school students have helped to give plays in ten communities. . . .

I came to Hunterdon County three years ago dreaming of splendid educational opportunities for the rural children of the county and determined to spend my energies freely to make my dreams come true. These dreams

took the form of consolidated schools that should be well equipped to serve both the children and the adults in the various communities of which they were to be the center. During my three years of work I have not lost sight of my vision. Parent-teacher associations, the Rural School Council, township festivals, evening community meetings, spell cooperation, increased interest, increased appropriations for schools, increased salaries for teachers, better teachers, better supplies—all of them steps toward consolidation. Figuratively speaking, we have collected the foundation stones for our consolidated schools. . . .

As a result of our agitation four, possibly six, one-room schools in this section will be replaced by two, possibly three two-room schools. This change is to be unaccompanied by any building program; several two-room buildings in which only one room has been used for a number of years will be used. Two-room schools are no part of our final consolidation program.

Georgiene Dismant, Morris County—By degrees it has been possible to get teachers to really teach spelling, not to spend the entire period in mere hearing of words. Spelling books are being used with more judgment. Many non-essential words are being omitted from lessons, of which we find so many in books of not recent publication. By giving part of period to work on difficult words, by appeal to eye, ear and muscle learners, by spelling games and trying to teach children that not all words require the same amount of study, children will become spellers.

The Health Club which had been placed in schools by Miss Bartlett I kept active. It was necessary to have a number of copies of rules made to place in rooms where they had been mislaid. The children tried hard to live up to rules. Some of the teachers added additional questions which they thought applicable to their own rooms. I feel that much is being done to create good habits. Housekeeping generally is creditable. In several rooms the winning side was to be given a treat by the losers. Games were also played between opposite sides. These helped to create enthusiasm among the members.

Sara B. Hernberg, Ocean County—There were in the helping teacher territory 42 teachers, 15 of whom were in new positions, 6 were without any experience and 2 had not taught for two years. My first big policy was to utilize the best teachers in preparing programs for group meetings and for demonstrating purposes. Second, I should give my major interest to these teachers. Third, that all programs should bend around the policies proposed. . . .

My general plan was as follows:

1. *Improvement of teaching* through classroom supervisor, follow-up work, group meetings, circular letters, visits to good schools, demonstrations and professional reading.
2. *Community Betterment* through Parent-Teacher Association, Red Cross activities, local and county festivals, community sings and illustrated lectures.
3. *Health Program* enlarged through health clubs and Red Cross, first aid demonstrations and cooperation of parents with medical inspectors.
4. *School boards.* To work for better teachers and higher salaries. Better equipment and consolidation.
5. *Motivation of school subjects* through standard tests, boys' and girls' club work, local festivals and county field day, thrift, Red Cross, morning exercises, exhibits and hand work. . . .

In March, the Kansas silent reading tests, Woody tests in arithmetic, series B, and the "Demons" in spelling were given again by the helping teacher. The teachers helped to correct the papers, locate the class difficulty and compare their score with the standard score. Every teacher was intensely interested in the work. . . .

Motivation of school work. The year's work was connected up with war work to as great an extent as possible. The school work has been motivated through boys' and girls' club work and local and county festivals very satisfactorily. The boys and girls are enthusiastic because they are doing real live work. Recognition is given this work through trips to State Fair at Trenton, State Farm and College.

Clare Bartlett, Passaic County—One of the greatest assets to the rural boys and girls is the physical training. Two communities in this territory seem to doubt the worth of this but the enjoyment with which the pupils proceed in systematic training through the drills, competitive sports and games and the improvement in posture, sociability and self control warrant our best efforts to further this splendid phase of school life.

There is no playground equipment for any of these schools except swings, teeters, a sand pit and facilities for jumping, vaulting and chinning supplied by the pupils.

May Day festivals or field days were held in each borough and township. Each community expressed enthusiastic approval after they had occurred and the hope that we will have them every year. Physical training, folk dancing, rhythmic exercises, story plays, competitive games in which parents, as well as children, took part, pole vaulting, running and standing broad jump, 50 and 100 yard dash, relay races, costumed plays, spelling match and baseball games composed the programs. Money was earned by the schools for the prizes which were awarded. . . .

We have aimed to relate the physical training and the health and hygiene work very closely, and health of the children has been our first, last and greatest concern. Medical inspection in these schools is not what it should be. Cases of adenoids, eye strain, enlarged tonsils and malnutrition, which we should have liked to see corrected above anything else, have been sadly neglected. By getting in touch with the parents, who realized the danger to the child, three cases will be taken care of this summer and two children, through the influence of the teacher, have been operated upon for adenoids.

Health squads to make daily inspections of rooms, grounds and toilets were organized at the beginning of the term. Careless pupils were called to account and as a result playgrounds were cleaned up and civic pride aroused. Appeals were made to the boards of education by the English classes for oil for floors, wash-basins for some schools, coolers, paper cups and towels. Floors were oiled in all but one school but no other requests were granted.

The right kinds of food and proper eating were concretely illustrated in hygiene lessons. In all one-room schools children march, wash their hands and return to seats and eat lunches with the teacher. When weather permits, a picnic outside is the plan, teacher and pupils always together. Very little lunching at recess is indulged in now where formerly it was the general custom.

In February the Modern Health Crusade Clubs were organized in all the

schools. One result in one school alone, where there are 30 children and every child drank tea, coffee or both, only four children have tasted it since they joined the Crusaders. The teacher is the mother of those four children. Next fall permanent health clubs will be organized to carry on the work which the Crusade has started so splendidly. Health habits with many have been formed.

Emma R. Burt, Salem County—With the help of the county superintendent, teachers' meetings were planned and held in each district before the opening day of school. These meetings were informal. One purpose was to get acquainted. The discussions were confined almost entirely to organization and program making. Sample programs made by the helping teacher for one, two and three room schools were distributed and discussed. Other meetings were held during the fall and winter. These were given to reading, penmanship and such other matters as naturally arose in the meetings, and to our good citizenship clubs.

These good citizenship clubs were organized in all schools where there were teachers competent to have oversight of them. Both the inexperienced and the experienced teachers, as well as the county superintendent and helping teacher, felt that these clubs were a very great help in causing the children to recognize certain responsibilities that they must assume. Care of property, good health, cleanliness, helpfulness in the home, obedience and truthfulness were emphasized.

Laura M. Sydenham, Somerset County—The rural teachers were called together as usual in Somerville the day before school opened in September to receive general directions and help from the county superintendent and helping teacher. As a result of this meeting the helping teacher later found practical responses in various parts of the county to a line of work which she wished to emphasize in the beginning—reading. Demonstration lessons were given at this first meeting by having several teachers act as pupils in first and second grades, while the helping teacher gathered her little classes about her at the blackboard and gave them first lessons in reading. A demonstration lesson in penmanship was given to clear up errors in teaching witnessed the year before. Then a language lesson that might be adapted to several grades was outlined. An outline lesson in geography was placed upon the blackboard. About the room were various pictures and helps which were explained and illustrated. This work was followed by general discussion, in which the questions asked and topics brought up by the teachers were discussed with much interest by those present. The enthusiasm of the meeting carried over into an after meeting with small groups. . . .

In connection with the self-activity of children, which we have been trying to foster, it may be interesting to accompany the helping teacher on a certain day when she had with her a schoolman from Oregon and another from Newfoundland, who were desirous of seeing what the children could do for themselves. Our first stop was at one of our poorest one-room buildings. After the pupils had conducted a salute to the flag and singing, two little girls stepped to the front and as their teacher played and sang "Over There," gave quite a dramatic dance in keeping with the spirit of the song. Next we stopped at our best one-room building and the pupils were asked to conduct

opening exercises. With no delay, one pupil passed singing books, while another went to the teacher's desk, the teacher having retired to the rear of the room, made her selection for the scripture reading, which was read responsively by the school, after the salute to the flag had been given. All repeated the Lord's Prayer, after which the leader announced the hymn to be sung and sat down to the organ and led the singing. At times the exercises are varied by current events, four minute speeches, recitations, etc., but now we asked to see pupils conduct physical training exercises. The school was marched to the grounds by a leader who put them through certain formation exercises, when she was replaced by another leader, a sturdy little girl who certainly did put them through their paces with the air of a general, and they responded beautifully until we called a halt, for she was merciless and the day was warm. Later we came to a two-room building where the primary pupils dramatized any story in the book for which we called. They did this without suggestions from their teacher. Their manner was free and easy, and their interest keen as they impersonated various animals and mimicked their voices. The difference between the "Town Mouse" and the "City Mouse" was most amusing. These excellent results did not happen by accident; in each case the teacher had done fine work in keeping herself in the background while the pupils were so well grounded that they had confidence in their ability to succeed. . . .

Health clubs have been most popular. Children work for weeks to become pages, squires, knights, in the health crusade, and wear their pins with great pride. In addition to the requirements of this crusade—personal cleanliness, proper food and sleep, play, cheerfulness—some schools have added school-room cleanliness. In one the aisles are named as avenues—Washington, Franklin, Lincoln, Broadway, etc. If any child resides on a certain avenue and does not keep his desk and floor in tidy condition, he is asked to move to the rear of another avenue; at any rate he knows he is not wanted where he is unless he mends his ways. Parent-teacher associations have provided dishes and certain articles of food to help out in the hot lunches which pupils have prepared.

Florence L. Farber, Sussex County—The cooperation of teachers during the past year has been manifested to a greater extent than any previous year during my work as helping teacher. As I view the work of the year, it seems to me that more vital teaching has been done than previously. Parents too have shown more interest in school work generally than previously and because of this it seems as if the time were ripe for organization to further cement this relationship. In view of this fact, we are aiming to organize community centers during the coming school year. . . .

At our institute last fall I talked on "motivation," illustrating my point with an outline on health organized in the form of a club. I urged such organizations, with the result that now we have 24 health clubs in this county, which are active. Mr. Decker has given added impetus to this work on several occasions by talks before patrons.

The work of the lunch clubs has been most creditable during this past year. Children are beginning to demand this and it surely adds greatly to the work done, to the general health, and to the interest of the school. Work of this type has been done in 16 of our rural schools. In some, clubs have been

organized and records kept; in others this was omitted. At one school the pupils and teacher planted potatoes on a small plot of ground at school. These were gathered in the fall, and the day before school closed for the Christmas holiday they were boiled and mashed for the lunch.

Mabel L. Bennett, Union County—In September I started out with two main problems in view: first, to make the opening exercises an inspiration for the day; second, to put into effect the problem method of teaching geography, history and civics. . . .

During the first two or three weeks of school I took the first problem up with all my teachers. I did this, as a rule, by planning and taking charge of the program myself. I aimed to have one or two of the present day patriotic songs, chosen by the children, the reading of the Bible, the Lord's Prayer, the flag salute, one or two current events read or told by the children, and we closed with a song chosen by the children. Then I asked to have committees appointed to serve a week, who would plan the opening exercises, with the help and advice of the teacher. The children were delighted, but many of the teachers were not. I persisted, and gradually, sometimes very gradually, won the teachers over. . . .

I tried also to make the opening exercises represent another thing. If a child showed improvement in any particular subject I urged the teachers to give him an opportunity to demonstrate it before all the other pupils. This to my mind has been the greatest benefit of the new type of program, namely, it has given the children a new incentive to advance. . . .

I have one district which worried me all last year. There is no church, hall or other gathering place. The principal last year was a man who kept school from 9 to 3.30. He had no interest in community affairs. This year a conscientious, ambitious man was appointed. From the very first day of the year, I talked making the school a community center. The principal took that up as his chief problem for the year. He started in by holding a dance in the schoolhouse.

The two rooms have movable seats. In one room we had a "Solomon Grundy" party for those who did not dance. I wish I could have had a movie of those people playing "tiddledy-winks," "straws," etc.

Three objects were accomplished by this initial party: first, enough money was taken in with which to buy a phonograph and a few records; second, the people became acquainted with one another; last but not least, there was a great clamoring for another one. Some sort of a gathering has been held each month. The people now think in terms of the schoolhouse as their "get together" place. We have asked for innumerable supplies and innovations and have not been turned down on one. During Visit-the-Schools Week 156 different people enrolled in a book kept for that purpose. . . .

In another district we have had great difficulty in trying to get the people to come to the school for any purpose whatsoever. This is due chiefly to the fact that at least 75 per cent. of the parents are Italian and do not understand the English language.

We decided to hold a field day there, as everyone could enjoy that. The idea was a new one in that section and the children were wildly enthusiastic. They formed an athletic association and a baseball team. They played several games from which they made enough money to finance their field day.

With Miss Packer's assistance we planned a short, snappy program consisting of two parts: first, races of all kinds, high and broad jumping, and folk dancing, mostly Italian; second, a baseball game.

It was with fear and heart palpitation that we awaited the arrival of the audience. At fifteen minutes before starting time we had the startling number of five persons. But about five minutes before the appointed time we saw a horde coming down the road. The whole Italian settlement turned out in a body.

We started the program right on the dot. The first part took about an hour and a quarter. Such cheering and yelling you never did hear; the people simply abandoned themselves to a good time. We could not understand their speaking language nor they ours, but we all understood the language of play and we now feel that we have some basis to start on for getting the people out next year.

Vera M. Telfer, Warren County—Quaker Grove school has also continued its hot lunches through the winter. They not only had their lunches but they had grown most of the food they used in their school garden. They grew potatoes, cabbages, onions, beets, parsnips, beans and radishes in their garden. Their supply was not exhausted until the winter was nearly over and then they were able to continue lunches through the donations of the families in the neighborhood. This year the farmer who gave them the use of the land last year has given them twice as large a plot as they had last year and they feel quite sure that they will have enough supplies for the entire winter.

There are only two schools in my territory that are without some musical instrument. . . .

Progress can be reported in another place also. The reading is improving. All the teachers are beginning to realize that the most of the difficulties in school work are reading difficulties. The boys and girls do not prepare a history lesson or they do not care for school because the school duties are tiresome and difficult and so often the difficulty lies in inability to interpret the printed page. One of my teachers told me at commencement that one of his boys had failed in arithmetic but his failure was due to his not being able to read. We as a body are striving for better reading. The teachers are using dramatization as a means and an aid in interpreting thought. The expression is improving. The little boys and girls are reading in their natural speaking voice instead of that high falsetto note so often heard in schools. . . .

A particularly good project in geography was worked out by Miss Mae Harris, of the new consolidated Independence school. It took up the geography of the world through the study of the milk industry in the different countries. A model sanitary cow stable of cement and wood was built by these fourth grade children. They were so interested that their parents declared that "milk" was the chief topic of conversation at home for several weeks.

This kind of work made a great impression upon the members of a visiting board of education. They are contemplating building a consolidated school, too, where similar work can be carried on. . . .

In this same Independence school ten eighth grade pupils under the direc-

tion of Miss Lena Shuster worked out a very good local history of the Great War. Besides leaving a copy of this history in the school for the use of other children, each of the eighth grade pupils has a nicely covered book to take home. It contains the names and pictures of the local boys who went into the service and a history of each. It contains an account of the Liberty Loan, Red Cross, and War Savings work of the school and community. It, of course, has war pictures and clippings of all kinds cut from newspapers and magazines. These boys and girls also have a "war chest" containing a collection of war posters and souvenirs brought home by the boys from "over there." A German helmet was presented to the class by the chairman of the local Victory Loan Committee. This was added to the "war chest" collection too. . . .

The Woody arithmetic tests, series B, were used on occasions where needed. They were used to test out the grading in three one-room schools which were about to consolidate and the results will be used in the future as a basis of effort toward bringing this school up to standard. In another school the tests were given to the seventh grade pupils in order to help ascertain their fitness for eighth grade examinations. Several of them made such good records that they were permitted to take the examinations and will enter high school in the fall. In still another school the teacher asked for help in making the children see the need of more accuracy in the fundamentals of arithmetic. The tests were given and their own results were so poor in comparison with other nearby schools that they were spurred on to better work. It is planned to give the tests next year in these same schools so that both teachers and pupils may keep track of their improvement. . . .

One of the biggest things accomplished in Warren County this year—if, indeed, it does not occupy first place—was the two-day county conference—a meeting to encourage the co-operation of all forces working for the development of the county. To lead up to the final meeting a series of community meetings—eight in all—was held throughout the county. In several places there were held exhibits of the children's agricultural work. The vegetables and canned goods were in the basement of the church, and the chickens, rabbits and other stock were exhibited on the church lawn. People assembled about 2.30 and the pupils from the five or six schools of the district gave a co-operative program. There was community singing, a speaker on some phase of household economics, school and community health or some similar subject. Then it was time to eat. The suppers were provided in the various communities either by the parent-teacher association, the Red Cross society or by the ladies' aid society of the community. In the evening there were community singing and addresses by the county superintendent and speakers from Teachers' College and the State Agricultural Department.

These meetings were planned to reach every one—children, teachers, the townspeople in and out of the church and the people in the rural districts. In spite of much skepticism on the part of many who were supposed to know the pulse of the district, the meetings were amazingly well attended. At Stewartsville, for example, it was estimated that 800 people attended. In Independence the church was filled in spite of the fact that the weather was very bad.

In February a two-day county conference was held at Belvidere Court

House. It was attended by 2,500 people, and many were turned away. The result was far greater than we had dared to hope for and the interest and enthusiasm exhibited bids fair for a still larger conference next year. It is fair to especially mention Miss Mabel Carney, of Teachers College, in connection with the success of this conference, as she assumed the responsibility of procuring most of the speakers. Mr. Shimer, of course, deserves a very large share of credit for the success of this conference.

Another new feature this year was the instituting of the field day picnic in each township. The total attendance for the county was estimated at about 10,000. Twenty-one field days were held in the county, eight of them being in my district. . . .

Viewing the year as a whole our work has broadened until it has touched community life more closely than in former years. The hearty response from the communities proves the need of a broadened social life.

MONOGRAPHS

There have been added to the list of monographs during the year one on the "Teaching of Geography, History and Civics," one on "Special Days and their Observance," and one on the "Teaching of Children Mentally Three Years or More Below the Normal."

Monographs are now in preparation for the teaching of music and for the kindergarten. It will be necessary to revise the elementary English monograph during the coming year.

We also need a monograph on school supervision and one on the teaching of drawing and manual training for the elementary schools. When these are finished the list of monographs will be complete.

It is impossible to estimate the good effect of these monographs on the teaching of the state. Suffice it to say that there is overwhelming testimony as to the benefits of these monographs, which have really become the bibles of the teachers in the subjects treated.

We have had so many calls for these monographs from all over the United States and from foreign countries that it became necessary to make a charge for them to persons outside New Jersey. We have collected, up to the date of writing this report, \$330.33. We have sent this money to the State Treasurer and we hold his receipt for it.

"THE TEACHING OF CHILDREN MENTALLY THREE YEARS OR MORE BELOW THE NORMAL"

Following is the Foreword from the monograph on the "Teaching of Children Mentally Three Years or More Below the Normal."

The General Assembly of 1911 enacted the following:

Each board of education in this State shall ascertain what children, if any, there are in the public schools who are three years or more below

the normal. In each school district in this State in which there are ten or more children, three years or more below the normal, the board of education thereof shall establish a special class or classes for their instruction, no class, however, to contain more than fifteen children. . . . The medical examiner of the district shall examine the children in special classes at least once in every three months.

The General Assembly of 1912 enacted:

The county superintendent of schools shall, on or before the first day of April in each year, apportion to the several school districts of said county the State school moneys, and the interest of the surplus revenue in the following manner. . . .

The sum of five hundred dollars for each teacher employed in a special class for the instruction of . . . children who are three years or more below the normal.

After the enactment of the law apportioning \$500 by the state for each teacher of children three years or more below the normal the question arose as to what teachers were affected by this law. It was decided that it applied only to those who teach children who are mentally three years or more below the normal; that it did not apply to teachers of children who are three years or more below the grade, by reason of irregular attendance, illness or causes other than mental defects.

During the year ending June 30, 1912, the total number of classes for subnormal children in the state was reported as 80. In 1916-17 there were 162 classes.

Later a circular was issued which contained the following:

Class C. This class consists of the mentally subnormal. The study so far given to this class of children has disclosed the subtlety and difficulty of the educational problems that they involve. The following description has been made by Superintendent Johnstone and Dr. Goddard, of the Vineland Training School, and has been used by Dr. Maxson, Superintendent of the Plainfield schools.

"Mentally subnormal children in the public schools exhibit certain common characteristics. The essential evidence of mental limitation is that the child is persistently unable to profit by the ordinary methods of instruction, as shown by lack of progress or failure of promotion through lack of capacity. After one, two or three years in school these children are either not able to read at all, or they have a very small and scanty vocabulary. One of the most constant and striking peculiarities is the feebleness of the power of voluntary attention. The child is unable to fix his attention upon any exercise or subject for any length of time. The moment his teacher's direction is withdrawn his attention ceases.

"These children are easily fatigued by mental effort, and lose interest quickly. They are not observant. They are often markedly backward in number work. They are especially backward in any school exercise requiring judgment and reasoning power. *They may excel in memory exercises.* They usually associate and play with children younger than themselves. They have weak will-power. They are easily influenced and led by their associates. They are often wilful and disobedient, and liable to attacks of stubbornness and bad temper. The 'typical 'incorrigible' of the primary grades is often a subnormal child of the excitable type.

"The physical inferiority of these defective children is often plainly shown by the general appearance. There is often some evidence of defect in the figure, face, attitudes or movements.

"Temporary backwardness in school work may be due to removable causes, such as defective vision, impaired hearing, adenoid growths in

nose or throat, or as the result of unhappy home conditions, irregular habits, want of proper sleep, lack of suitable food, bad hygienic conditions, etc. Great care must always be used in order not to confound cases of permanent mental deficiency with cases of temporary backwardness in school work, due to the causes mentioned above."

This description will be helpful in guiding the judgment of a teacher or supervisor in the study of individual pupils, but no child should be finally classed as mentally subnormal and be placed with mentally subnormal children for training who has not been so classed by one who has had special training and experience in this field of study. Even then every judgment should be considered tentative and any child should be returned to the regular school as soon as there are indications that he may be able to lead there a normal life.

In some of the large cities a department for the care of mentally subnormal children has already been created and a person qualified to pass judgment upon the mental ability of children has been appointed as director. It is hoped that this policy will be adopted in other large cities.

In smaller cities the services of a competent person may be secured from a nearby city or from an institution for the study of this class of children.

The State Department of Public Instruction will be glad to advise with the school authorities of those communities which may be unable to secure the services of an expert.

The State Board of Education, on the recommendation of the State Board of Examiners, adopted the following rule for the certification of teachers of mentally defective children:

For the mentally defective class certificate the applicant shall hold a permanent elementary certificate or a permanent secondary certificate and shall pass three examinations as follows:

- a. Psychology, with special reference to pupils mentally defective, including recognized tests applied to pupils mentally defective;
- b. Elementary manual training for both boys and girls;
- c. Physical training, with special reference to physical defects.

Courses in schools which aim to prepare teachers of pupils mentally defective and which have been approved by the State Board of Examiners will be accepted in lieu of these examinations. No courses offered for the training of teachers for defective children will be approved unless the school has practice work with classes of defective children.

It has been felt that a pamphlet concerning these subnormal children, their organization into special classes, the course of study, and the exercises that could be most profitably carried on, would be useful to teachers and school officials. Such a monograph, in fact, appeared to be necessary, inasmuch as, so far as is known, there is little in print to which the teacher could resort for help or guidance in a field which is confessedly a difficult one.

Moreover, the state, together with local districts, is expending fully \$150,000 a year in the training of these children. There were 2220 children enrolled in these classes in 1916-17.

It should be said, however, that the expense for the maintenance of these

classes is not to be measured by the number of subnormal children enrolled therein. The withdrawal or elimination of the subnormal children from regular classes relieves the teacher of those classes of a large burden. The presence in regular classes of subnormal children is a great tax upon the energy and time of the teacher and often greatly retards the progress of normal children.

It is fitting, for several reasons, that New Jersey should be first to set up standards for teaching these children in its public schools. New Jersey was the first state to make the establishment of these schools compulsory. In the operation of these schools it had a body of experience to draw on covering a period of more than five years. More significant still, it has among its teachers and citizens men and women who are widely recognized as experts in the study and treatment of this class of children.

The services of these experts were gladly placed at our disposal in the preparation of this monograph. The Commissioner of Education therefore asked the co-operation of the following persons:

Miss Meta L. Anderson, Supervisor Defective Classes, Newark.
Mr. Edgar A. Doll, Assistant Psychologist, Training School, Vineland.
Dr. H. H. Goddard, Director of Research, Training School, Vineland.
Miss Helen M. Hamilton, Supervisor Subnormal Classes, Jersey City.
Dr. E. R. Johnstone, Superintendent Training School, Vineland.
Dr. James E. Lough, New York University, New York City.
Dr. J. M. McCallie, Supervisor Defective Classes, Trenton.
Dr. J. J. Savitz, Principal State Normal School, Trenton.

Each of these persons prepared a discussion of a topic assigned at a conference with the Commissioner of Education and Assistant Commissioner Scott. Other conferences were held and at the final one views were exchanged and an attempt was made to bring the conflicting opinions into harmony. The Department is greatly indebted to these men and women for their valuable and ungrudging assistance. Indeed, without their assistance the preparation of this monograph would have been impossible.

CALVIN N. KENDALL,
Commissioner of Education.

January, 1918.

FIT TO FIGHT

In November a circular was issued entitled "Fit to Fight—Are You a Slacker?" which had been prepared by Dr. Thomas D. Wood, of Teachers College, New York City.

The Commissioner stated that this was the clearest, most readable and most forceful statement concerning the health of teachers and pupils that he had seen.

This circular was distributed throughout the state. It is of such importance that I deem it worthy of incorporation in this report.

FIT TO FIGHT
ARE YOU A SLACKER?

THOMAS D. WOOD, A.M., M.D.

College Physician, Teachers College; Professor of Physical Education, Columbia University; Chairman of Committee on Health Problems, National Council of Education

This is a challenge to students and teachers.

Health is an abundance of life. Have you as much of this invaluable capital and commodity as you can reasonably get and helpfully use? If not, you are a slacker of one kind.

Physical fitness means sufficient physical ability and power for the excellent performance of the tasks you are doing or the tasks that may be demanded of you; not simply enough to be acceptable to you but enough to be acceptable to the world.

Physical fitness means as much ability and power as your country considers necessary and satisfactory; and the standards of the nation with reference to physical fitness as well as to other kinds of fitness for life, for citizenship, are increasing and crystallizing with great rapidity in these days.

Human beings are, in physical fitness (on the average), the lowest in the scale of living things. Physical fitness, however, is as indispensable to mankind as to other creatures.

Physical fitness is as indispensable in peace as in war.

Physical fitness is as indispensable for adults as for children, for women as for men, for brain workers as for manual workers, for students and teachers as for everybody else.

Have you as much of health, of physical fitness, as you can get and maintain by intelligent, conscientious, and faithful effort? If not, you are a slacker—and a kind of slacker that will be increasingly unpopular, and more held to account as the days go by.

Are you fit to fight—in the cause of civilization, of reconstruction, of education, of national and world progress? The Allies are fighting for victory, for human freedom, for the safety of democracy, for the termination of all wars so far as mortal combats between human beings and armies are concerned. But war and fighting must still continue against the common, universal enemies of mankind; against ignorance, disease, selfishness, irresponsibility, wastefulness, inefficiency.

As students you are being trained with special privilege and opportunity for leadership in this great army of democracy. As teachers, you are preparing and being prepared for officers' commissions in this great war for the fundamental and permanent values of humanity. Are you physically fit to fight in this campaign?

Our trained men fight the enemy in Europe. They are superb fighters. They are as near 100 per cent. in body, mind, and morale for war as human means can train and keep them. Yet in the first great draft, 29 per cent. of the young men of this nation were rejected for physical defects. The great majority of the young men accepted for the training camps improved so strikingly in health, vigor, and general physical fitness that they astonished themselves, their families, and even their officers. After the war these same fighting men are coming back with new standards of life, of fitness, of

patriotism, for their fellow-citizens as well as for themselves. When that times comes are you going to be up to their standards?

Our young women are relatively, and, on the average, no more healthy and physically fit for the fight for life, for citizenship, than our young men; in some essential qualities, apparently even less so—and very little is being done for them. Yet our young women would show just as much improvement in physical efficiency with suitable training as the young men in the great military camps have shown.

As for the children—75 per cent. of the school children of America have physical defects which are potentially or actually injurious to health and destructive to physical fitness. Most of these defects are remediable, but most of them are also being wastefully neglected. Our present educational program is seriously and inexcusably deficient, not only in the provision for removal of defects but in other even more positive, constructive measures for the inculcation of habits of healthful living and for the development of complete physical fitness.

How about the health and physical fitness of teachers? According to their own testimony, at least 30 per cent. of them are below a minimum standard. Of teachers who have taught five years or more, 30 per cent. are in poorer health and less fit physically than they were when they began to teach. While some of the conditions which lower the physical fitness of teachers are beyond their powers of personal control, still the gain in physical fitness, within the control of the teachers themselves, would, if demonstrated, make an astounding showing. Ninety per cent. of the teachers are living well below the level of physical fitness attainable by them. Where do you stand? Do you belong to the 10 per cent. of physically fit teachers? Perhaps—but the chances are nine to one that you do not.

However, physical fitness is not everything. It is not the main goal of life or of education. It is not even always immediately essential to what is finest in mind, personality, and character. Some of the great men of history have accomplished deeds of immortal distinction in spite of pain and physical disability. However, nothing in such lives can be interpreted in defence or praise of physical weakness or unfitness. It must be conceded that physical fitness is a fundamental requisite for the completest and best in life.

By what signs, then, may you conclude that you are physically fit? Here are some of them:

1. A sense of physical well-being. This means that you should feel a zest and satisfaction in mental and muscular effort; an interest and joy in work and recreation, kept in sensible proportion and balance; and a freedom from pain—for this inevitably interferes with clear thinking, concentrated effort, and effective work.

2. A feeling of being refreshed and recuperated on rising in the morning after a customary night's rest, and a feeling of healthy fatigue as bedtime approaches. The hangover of fatigue in the morning, experienced by so many students and teachers, should be escaped from as fast as possible. On the other hand, a feeling of intellectual keenness and brilliancy in the late evening should be viewed with suspicion. It is an auto-intoxication of the nerves.

3. Enjoyment of wholesome food, including a moderately good appetite

even for breakfast. To begin the day's work without a fairly nourishing breakfast is just as sensible as for a steamer captain to stoke his furnace with the chopped up wood-work from his vessel. This extraordinary expenditure of fuel may, in both cases, be necessary in rare emergencies but it is highly extravagant and, moreover, harmful to the internal architecture of the man as well as to that of the ship.

4. Body weight maintained at about the proper standard for height and age. A person who is 10 per cent. or more under standard weight is probably undernourished and to some extent deficient in energy and endurance. The individual who is more than 10 per cent. above standard weight is carrying burdensome "excess baggage" which is apt, with advancing years, to prove a handicap to health or perhaps to life.

5. Elimination from the intestinal tract. This should take place at least once daily.

6. Freedom from persistent worry. This is one of the most destructive influences upon life, health, and physical as well as mental fitness.

If you are honestly intent upon being physically fit, what should you do?

1. Admit to yourself the limitations upon your health, if such have been imposed upon you by ancestral influence and your own past life; but do not because of these be discouraged, or excuse yourself for being a health slacker. Then do the best you can with what you have. The health accomplishments of some delicate children and adults make up notable chapters, even if unrecorded, of heroic human achievement.

2. Free yourself from physical defects that are wholly or partially remediable, which may lower your physical fitness. A thorough health examination of the human machine and advice at least once a year, for children and adults, will detect flaws, improve power, prevent disease, save the doctors' bills, lengthen life, and increase happiness. The eyes, ears, and teeth should be especially looked after. Defective eyes and ears may obstruct mental development, injure the general health, and produce serious social and economic loss.

Defective and neglected teeth have caused more physical deterioration of this nation than the use of alcohol—and no minimizing of the harmful effects of alcohol is here either stated or implied. Unrecognized teeth abscesses and diseased tonsils cause a majority of all cases of rheumatism and neuralgia, as well as some other ills. Infections absorbed through the teeth and tonsils produce an alarming proportion of organic heart defects. No sentiment or superstition should prevent the removal of diseased tonsils. Correct your physical defects before they cripple you.

3. Eat regularly. Eat slowly. Eat patriotically in accord with the rules of the Food Administration.

Eat some hard food for the sake of the teeth; eat fresh, raw, or green food for the chemical needs of the body; eat meat or eggs only once a day.

Avoid undereating and underweight. Avoid overeating and overweight.

Eat lightly of easily digested food when tired, excited, or anxious.

Drink three to five glasses of water a day outside of mealtime. Never drink when there is solid food in the mouth.

Finally, before putting food into the mouth, always wash your hands.

4. Spend eight to nine hours in bed every night. Very few can maintain physical fitness with less than eight hours in bed daily. Many students and

teachers will add much to productive efficiency by devoting nine hours to sleep and rest each day. Sleep out-of-doors when you can. Sleep as nearly as possible in outdoor air at all times. Outdoor air is the most valuable. Do not expect to sleep and rest well at night unless the body and extremities are warm.

If you are wise you will also lie down for ten to twenty minutes rest near the middle of the day, if possible. Forty-five per cent. of 1,400 teachers in New York State testify that one of the most unhealthful school conditions affecting them is the lack of a place in which to rest or to lie down during noon intermission.

5. Spend at least an hour a day in recreation and exercise, outdoors, if possible; and it is possible, with few exceptions, even in stormy weather, if you plan intelligently enough.

Take exercise that is enjoyable, and vigorous enough to require deep breathing and to open the skin pores.

Exercise daily not only the extremities but the trunk of the body, even if you have to do briefly, in addition, some gymnastics indoors.

6. Acquire and maintain a good posture; weight over the balls of the feet; chest forward; abdomen back; the back not hollowed too much; the top of the head held as high as possible without fatiguing strain.

Seventy-five per cent. of students and teachers have faulty, weak postures. Posture reflects and helps to determine mental attitude and efficiency as well as bodily fitness.

Avoid weak or fallen foot arches. Wear as healthful shoes as your rationalized hygienic sense will permit.

7. Take a cool tub, shower or sponge bath each morning before breakfast. Use a coarse towel, and flesh brushes, as the vigorous friction of the entire body surface is of great value. Twice a week take a warm cleansing bath at bedtime.

Attend to the evacuation of the intestine daily and with absolute regularity. Constipation is the most common of all physical ailments. It is the trench disease of sedentary workers.

Constipation produces auto-intoxication (self-poisoning) of the body and may also cause headache, indigestion, biliousness, and other disturbances even more serious. Avoid constipation by drinking sufficient water, eating bulky food and fruit, and taking regular, vigorous exercise. Avoid medicines for constipation, if possible. However, as a last resort, take a mild laxative rather than retain the poisonous waste matter in the body.

9. Get some form of mental as well as muscular recreation regularly. Cultivate some hobby for an avocation. Cultivate and preserve the play spirit. This is the best elixir of youth for teachers.

10. Avoid worry as you would avoid the plague.

Worry injures the nervous system, and is mentally harmful. Worry depresses the bodily functions, disturbs the secretions, and endangers the vital organs.

Worry decreases the resistance of the organism against some forms of communicable diseases and infections. Everywhere, worry is destructive and disintegrating.

Be cheerful. Be unselfish. Preserve a sense of humor. Cultivate your

imagination. Be determined to keep physically fit, but don't worry about your health, of all things.

If you are not well, if the condition of the machine disturbs you, get expert advice.

Remember! If you are in fairly good condition, if you are living hygienically, if you are not worrying, hard work will not hurt you. It is the unhealthful living and the worry that do the harm.

It is the confident belief of the challenger in this message that no measure has been here advocated which will not more than repay for the time and effort expended. The wise investor will draw his dividends in the currency of improved physical fitness, increased efficiency, and a general satisfaction with his work and his world. Health coupons, too, are payable not merely on quarter days and at the year's end but hourly throughout a long life.

PRINCIPLES WHICH ARE TO BE USED AS GUIDES IN CLASSIFYING AND PROMOTING CHILDREN

Early in 1918 a committee of county superintendents—Morris of Ocean County, chairman, Cressman of Atlantic County, and Decker of Sussex County, was appointed to work with Assistant Commissioner Scott to formulate principles for use as guides in classifying and promoting children.

After preliminary study of the problem this committee met with a group of city superintendents composed of the following members—Bryan of Camden, Bliss of Montclair, Sherman of Englewood, Broome of East Orange, Corson of Newark, Snyder of Jersey City, and Gregory of Long Branch.

Several joint committee meetings were held. A careful study of the many phases of the problem was made, and a detailed report was submitted. The prevailing suggestions and criticisms of the county superintendents and helping teachers were also incorporated.

This final report, then, represents a careful study made by groups of educational leaders in New Jersey. Perhaps no single member would agree to all the principles given. On the other hand, these principles do represent the common judgment of the group taken as a whole.

The purpose of this study will be fulfilled if it indicates to boards of education and administrative and supervisory officers of the state the educational principles to be followed in classifying and promoting children. If it is interpreted on broad lines and followed in practice greater progress will be made throughout the state in adjusting the work of the schools to suit the needs of individual children.

The Department acknowledges its indebtedness to the above named superintendents who did such good work in the preparation of this report.

There is no more important problem in school administration than that of classifying and promoting pupils. Fundamentally, all business people and all professional people plan their work with the idea that they will make a success of it. This idea, or ideal, which they hold in mind no doubt is a big factor in determining their progress. School teachers and school children should think of the work of the school in terms of success, which can come only through persistent interest and effort on the part of supervisors, teachers and pupils. There are few adults who enjoy doing the same task in the same way the second time, unless, perhaps, they are given an extra record for the second performance. Likewise, few school children get any enjoyment from doing the same task the second time, from repeating a half year or a year's work. Fundamentally, then, those of us interested in school administration, those of us doing the actual teaching from day to day should become imbued with the idea that success in the work attempted should be the goal for school children.

In systems where excellent teaching conditions obtain it is possible to have a very high percentage of promotions. It would be well if in all systems a tentative promotional standard could be set up. For example, one system might decide that its standard of promotions should be 95 per cent. of all pupils on roll. This tentative standard might serve as a check to those teachers who think that all children should be promoted regardless of results accomplished or interest and effort put forth.

It might serve, on the other hand, to stimulate those teachers who think that success is measured by the number of pupils who are "kept back." In either case the tentative standard is very helpful in indicating what results are expected in the way of pupil progress. If individual buildings or individual teachers fall below this standard the supervisor should learn fully the causes of such deviations. He should make any and all such deviations a supervisory problem.

There may be definite reasons why at certain times a building may fall below the regular standard of accomplishment. The course of study may be poorly adjusted. Illness may keep many children away from school for a long time. Several inexperienced teachers may be working simultaneously in the building. The teachers may be uneconomically placed with respect to grades. The school may lack a follow-up system to care for the over-aged pupils.

Again, there may be reasons why, for a half year or a year, a given room may fall below the standard. This room may have several over-age pupils. The teacher may not be suited to the grade. The physical conditions of the room may not be good. The pupils may be of an age when they question the worth of school.

In any case the important consideration is for the supervisor to understand fully why such deviations have occurred. If he and the teachers understand the conditions fully, and if they are working intelligently to approach the standard, good results will be sure to follow. In systems where this plan has been in operation a steady lowering of retardation has followed.

With the foregoing thoughts in mind the following propositions relative to progress through the grades have been worked out, and they are suggested as possible criteria by which to measure school work.

1. Progress of children through the schools should be determined by

their accomplishment or achievement from day to day, rather than by accidental or limited performances, such as monthly tests or term examinations. The record of accomplishments or achievements, however, should not be made daily, but when a unit of instruction, a problem, or a project is finished.

2. In considering the classification or placing of pupils it is important that the intelligence, physiological age, native ability, native interest (both in subject matter and in the pupil's membership in a certain social group) and the health of children should be the determining factors. The function of the school, then, will be to provide such environment that the pupils of varying abilities will continually be using their native endowment to its highest capacity.

3. Limits of work to be accomplished in a given course of study should be determined by supervisors and teachers, but provision should be made whereby pupils who have greater native ability, or better advantages, would be permitted to do more than the minimum requirements; and pupils who have less ability, or who have had limited advantages, would have opportunity to do less than the minimum. For example, in a group of thirty children in geography the four or five of marked ability should be expected to make special reports or give added information; the four or five lowest in ability should be expected to do even less work in quantity than the average ones of the group. The course of study for schools in which there are many foreign-born children should be adapted to the needs of those children.

4. The normal distribution of children in terms of ability indicates that from 3 per cent. to 10 per cent. of any large number of children are of superior ability; that from 10 per cent. to 15 per cent. are above average ability, but not superior; that from 40 per cent. to 55 per cent. are of average ability; that from 10 per cent. to 15 per cent. are below average ability, but not inferior; that from 3 per cent. to 10 per cent. are inferior in ability. The largest homogeneous group in this normal distribution is the large middle group, called the middle 50 per cent. The pupils of this group are those of a given room, or a given building, who are capable of doing the average work of a grade. In measuring the work of all children the teacher should keep in mind this middle 50 per cent. of the normal distribution of children. If she measures in terms of what this group can accomplish, she will be more patient with the small group of children whose accomplishment is less than the average. She will be more exacting of the small group whose possibility of accomplishment is greater than the average group.

5. In order to rate pupils on their accomplishment they should be divided in the minds of teachers and supervisors into about five groups: 1, 2, 3, 4, 5. Such a system of rating recognizes the individual differences in pupils. It makes it easier to adjust the promotional scheme upon a point basis rather than upon a percentage basis. This point basis should permit of variations around a certain point. Any scheme of marking is merely an approximation and should be used accordingly.

6. As a principle in school administration, no pupil should repeat a grade more than once. Ideally, no pupil should ever repeat a grade. Where pupils are wholly unsuited for the work of a given grade, special provision should be made by which they may be given additional help, or a new type of work.

7. It is not advisable to hold children back because of lack of skill in a single subject; for example, in arithmetic in any grade, or in oral reading above the second grade.

8. Pupils should be promoted by subjects wherever school administration permits such a scheme.

9. Pupils who by native ability or by accomplishment have finished a given subject ahead of time should be given additional work or excused temporarily from that subject in order to improve their achievements in subjects in which they are less skillful.

10. The majority of school administrators agree that the semi-annual plan of promotion, or some modification of this plan, should be followed wherever possible. Under ordinary conditions, pupils should remain with a given teacher a full year. The right use of the semi-annual plan of promotion will permit of adjustments whereby pupils will remain a full year with a teacher. The important consideration, regardless of the plan, is flexibility of promotional scheme.

11. Instead of formal tests or examinations for promotional purposes, the daily accomplishments of pupils should be the basis for classification and promotion. Tests for achievement, to show work accomplished by the pupils and to indicate growth in skill in the teacher, should be given at irregular intervals through the year. In general, standard tests should be used for this purpose.

12. In judging achievement pupils should be marked on basis of quality of work as well as quantity of work.

13. Pupils of superior accomplishment should be promoted at any time during the year. It is a mark of good supervision and teaching when superior children are promoted at any time during the year and a careful follow-up plan adopted.

14. Trial promotions should be more frequent. They are successful in more than 80 per cent. of the cases.

15. Whenever a teacher or supervisor is in doubt about promotion the child should be given the benefit of the doubt and promoted, since teachers are often conservative. In situations where there has been doubt, conferences have been held between teacher, principal and supervisor, with the result that almost invariably, after the discussion of the pupil's records, habits of work, and future possibilities, promotion has been made. In these cases there is no doubt but that such action was good for the children, but the best feature of the plan was that the teacher very likely obtained a more liberal attitude toward the whole question of promotion. It is not the business of the supervisor or principal to state independently that a given child is to be promoted. True, he may do so, and should do so when he feels that the situation demands it. It is his important function, however, through conferences with his teachers, to show them the advisability of promoting certain children.

16. The marking of teachers has much to do with the promotion of pupils. The tendency of some teachers is to mark too closely; the tendency of others is to be too liberal in their marking. The supervisor of a given system should train his teachers definitely in regard to marking, so that extreme variations may be removed. In certain successful New Jersey systems graphs showing different teachers' markings are kept. A comparison is made with the average graph for the different grades in the system. This device has helped in standardizing teachers' marks. The teacher who persistently fails a large percentage of her pupils should revise her standard and her method

of teaching; on the other hand, the teacher who persistently promotes all children "willy nilly" should revise her practices.

17. All review tests should be organized on the basis of units of instruction, problems or project, and not periodically. For example, the time to give a review on decimal fractions is upon the completion of work in decimal fractions. The economical review upon transportation is the one which is given when pupils have just studied the various phases of transportation.

18. Parents should be kept informed as to the progress of children as far as possible. If a child is not to be promoted a special statement should be sent to the parent several weeks before the end of the term.

19. Wherever there are ten or more mentally retarded children in a community the supervisor should take advantage of the provisions made by the law and establish a class or classes for such children.

20. Opportunity classes should be provided for over-age pupils.

21. Provision should be made for precocious children by organizing classes where they can make progress in keeping with their ability.

22. Age grade tables and age progress tables should be made at least once each year. These tables should be studied carefully by the supervisor, and should form the bases of teachers' meetings.

23. Exceptionally bright pupils in high school should be allowed to carry additional subjects and shorten the course.

24. The State Efficiency Tests should be used for general efficiency only, not for promotional purposes.

CONSOLIDATION OF SCHOOLS

The consolidation of schools in the rural districts has steadily increased in all parts of the state, but has grown more rapidly in some counties than in others. In one large rural county of the state about fifty one-room schools have been closed and the children transported to neighboring schools or to consolidated buildings erected for the purpose. At the close of the year there were 709 one-room schools in the state. In 1912—seven years ago—the number of these one-room schools was 869. This indicates the progress of consolidation in seven years.

We do not need, in my judgment, any additional legislation affecting consolidation. The substance of the law affecting consolidation provides substantially as follows:

Whenever a township, incorporated town or borough school district desires to consolidate with an adjoining township, incorporated town or borough school district, the board of education of such district shall petition the superintendent of schools of the county in which such district is situated to appoint a time when the legal voters of each district shall vote upon the question of consolidation. Each of said boards of education, upon being instructed by the county superintendent to hold such election on a day designated by him,

shall call a special meeting of the legal voters of the district for that day and at such hour and place as each board may determine. Such election shall be by ballot, and if the county superintendent shall ascertain that a majority of votes cast in each district is in favor of such consolidation, he shall at once notify each of the boards of education and thereafter said districts shall constitute but one district.

Four members of each board of education, chosen by lot, shall serve on the board of the consolidated district, and these eight members shall select a ninth member from the remaining members of the board of education of the district employing the greater number of teachers; provided, that if the board of education of one of the districts consists of but three members, all shall be members of the consolidated board, and four members shall be chosen by lot from the board of education of the other district so consolidated; and provided further, that if each of the boards of the consolidated district shall consist of but three members, each board shall constitute the board of the consolidated district. The board formed as provided above shall serve until the next annual meeting for election of members of boards of education.

Said consolidated board of education shall be a body corporate, and shall be known by the name of the municipality in which was situated that district so consolidated which had the larger amount of taxable property, as ascertained from the last published report of the State Comptroller.

SCHOOL FESTIVALS AND FIELD DAYS

A new departure in the work of the schools has been the organization in many of the counties of school festivals and field days.

These days have been held usually in the spring of the year, with the county as a unit. In one or two counties, however, the township has been made the unit.

At these festivals the school children of the county—or township, as the case may be—give exhibitions of their work in physical training, chorus singing and other school activities.

Usually the festival or field day is an all-day affair. They are very popular, and at times the attendance runs into the thousands. The attention with which the work is observed attests the interest that the public has in the children and their school enterprises.

There is no better means of securing real school spirit and interest in the schools on the part of the public than through these festivals and field days.



MORRIS COUNTY SCHOOLS ATHLETIC MEET

COUNTY SUPERINTENDENTS

During the year the following appointments of county superintendents were made by the Commissioner of Education and confirmed by the State Board of Education:

H. M. Cressman, Atlantic County, July 6, 1918.
B. C. Wooster, Bergen County, July 6, 1918.
Charles S. Albertson, Camden County, July 6, 1918.
Joseph M. Arnold, Mercer County, July 6, 1918.
H. Brewster Willis, Middlesex County, July 6, 1918.
Edward W. Garrison, Passaic County, July 6, 1918.
Henry C. Krebs, Somerset County, July 6, 1918.
Ralph Decker, Sussex County, July 6, 1918.
Aaron W. Hand, Cape May County, November 2, 1918.
Charles A. Morris, Ocean County, November 2, 1918.
Oliver J. Morelock, Essex County, February 1, 1919.
J. J. Unger, Cumberland County, March 1, 1919.

TEACHERS' INSTITUTES

Teachers' Institutes were held as follows:

Atlantic County, at Atlantic City, January 25, 1919.
Bergen County, at Hackensack, March 29, 1919.
Burlington County, at Mount Holly, February 15, 1919.
Cape May County, at Cape May, January 11, 1919.
Cumberland County, at Bridgeton, October 31 and November 1, 1918.
Gloucester County, at Woodbury, December 7, 1918.
Monmouth County, at Long Branch, December 7, 1918.
Ocean County, at Lakewood, December 14, 1918.
Salem County, at Salem, January 18, 1919.
Somerset County, at Somerville, December 14, 1918.
Sussex County, at Newton, October 7 and 8, 1918.
Warren County, at Belvidere, February 21, 1919.

The institutes were conducted in part on the sectional plan, namely, different sections for primary grades, grammar grades, high school, industrial education and rural school. This plan, while increasing the expense, is much more satisfactory and effective than that of having only general lectures before the entire institute.

ELECTION DAY AS A SCHOOL HOLIDAY

As stated in a previous report, I cannot see any good reason for closing the schools of the state on the regular election day, except to make available the small number of rooms which are needed for election purposes.

In my judgment the law should be amended so that schools may be kept open on election days.

I am in favor of using schoolrooms for election purposes. But where they are not used for such purposes, the schools should be in session.

It costs to operate schools of the state about \$140,000 a day. Depriving the children of school during this day means an educational loss, therefore, of \$140,000.

There are only a very few states—not to exceed, I believe, four or five—where the schools are not in session on election day.

The school year at best is short enough and we want to conserve every day possible.

I recommend that the school law be so amended that it will not exempt teachers from teaching on the day on which a general election is held, even though such day be a legal holiday.

THE NEED OF BETTER SCHOOL ENROLLMENT AND ATTENDANCE

The schools were in session on the average 166 days, in comparison with 178 days the previous year. This decrease was directly due to the wide-spread prevalence of influenza during the fall term.

The average per cent of attendance was reported the same as last year—88 per cent.

The average absence for each pupil was 16 days; for the previous year it was 18 days.

The “average pupil” was actually in school 133 days, and the corresponding number of days for the previous year was 139.

There are 8760 hours in the calendar year. Giving each child 10 hours for sleep, the amount needed by every school child, there are left 5110 hours when he is awake.

Counting the school day as $5\frac{1}{2}$ hours, the average New Jersey child was in school $731\frac{1}{2}$ hours last year. He was therefore in school approximately only 14.3 per cent of the time when he was awake, taking the calendar year as a whole.

During 85.7 per cent of his daylight hours, therefore, he was not under the influence of the schools.

When we consider the obligations laid upon teachers in the training of children, the duties which have been thrust upon the schools of late, the enlarged responsibilities which the schools have undertaken, and how much the public demands of them, it is apparent that every hour of the child's time in school should be used to the very best advantage.

He was in school, to repeat, $731\frac{1}{2}$ hours—a little more than 30 days of 24 hours each. Computing his time in school in this way,

335 days of the year out of 365 days he was not in school at all. How brief is this period in school—30 days out of 365.

Our school year, then, at the best is brief. When we consider that only 14.3 per cent of the child's time is demanded by the schools we can readily see how important it is that he be in school every hour of that time.

How regularly do children go to school in New Jersey? Do they *all* go to school as the law requires?

For detailed answers to these two questions read the reports of the county superintendents and helping teachers which follow.

The loss in the efficiency of the schools due to poor attendance is greater than that due to poor and inadequate teaching. The cost of the schools goes on whether the children are in school or not. Teachers and superintendents must be paid, janitors employed, buildings heated and textbooks bought. The schools exist for the training of children. It is difficult to state how much of the poor attendance could have been prevented if adequate steps had been taken to prevent it. Probably one-half of this absence might have been avoided. This is not merely my opinion; it is also the opinion of others who have made a study of the situation.

The plain truth is that the compulsory education laws are not enforced in New Jersey as they should be and might be. Let us be honest with ourselves and admit it. Let us further admit that 133 days of schooling—the school attendance of the average child—is too brief for purposes of public education and training of children. Let us also bear in mind that 232 days in the year the child does not go to school at all in New Jersey.

Is this a safe condition of affairs? Let us not delude ourselves, after this showing, that we have what might be called universal education in New Jersey.

Our present laws provide that in every school district there shall be a local attendance officer or attendance officers to enforce the compulsory education laws. Many of these officers do use their best efforts to enforce the laws but others do not.

It is asserted that there are cases where the attendance officers are appointed with the understanding that they are not to enforce the law to get the children into school and keep them there.

One of the defects of the present law is that the township or district unit is not large enough. The local attendance officer is not likely to enforce the law against men whom he calls by their first names and the result is that the law is laxly enforced or not enforced at all.

The current expenses for the school year 1918-19 were \$25,451,014.43.

Absence was approximately 12 per cent. One-half of this absence could have been avoided if the children had been in school as they should have been. In other words, the average attendance might have been 94 per cent instead of 88 per cent.

Six per cent—representing avoidable absences—of twenty-five million dollars is a million and a half dollars. This was money actually lost to the state in the efficiency of the schools.

Many of the children in the state attend school only one half of the time, or two-thirds, or even one-third of the time, because our compulsory education laws are not adequately enforced.

May I again call your attention to the facts as revealed by the county superintendents and helping teachers in the reports which follow. These persons, actually in the field, know the situation better than any other persons in the state.

The war revealed—as is well known—the fact that there is an astonishing amount of illiteracy in this country. This illiteracy is directly due to the failure to enforce the compulsory education laws in America. You cannot teach children if they are not in school.

There are many children in New Jersey who do not go to school. They escape the processes of education, although the Constitution of the State reads as follows:

The Legislature shall provide for the maintenance and support of a thorough and efficient system of free public schools for the instruction of all the children in this State between the ages of five and eighteen years.

The children who do not attend school grow up ignorant, or as illiterates. We have a magnificent school system and spend millions of dollars upon it. All the children in the state should be in school somewhere, but a few are not in school anywhere.

The census of 1910, the last federal census, classed 12,253 persons in New Jersey—born here—as illiterates above the age of 10 years. How many there are now nobody knows.

On the other hand, there are more than 2000 schoolhouses, valued at over \$80,000,000; there is a school system costing over \$25,000,000 a year, and there are 18,000 teachers. It would seem as though one of our greatest leaks is that the children and their parents do not take advantage of these educational opportunities as they ought to.

We cannot make great inroads upon this evil with our existing appliances for administration.

What we need is an attendance bureau at Trenton whose sole business would be to give its attention to the prevention of this enormous waste in dollars and cents, to say nothing of the waste in education which is caused by inadequate enforcement of the compulsory education laws.

It will not do to say that our education is as good as it is in other states or that it is as good as it ever was. This is pettifogging the situation. New Jersey schools should be the best in the country and steps should be taken at once to remedy what seems to be our greatest defect.

New York, Pennsylvania and Connecticut have attendance bureaus whose business is to enforce the compulsory education laws.

New Jersey should also have an attendance bureau. The cost would not exceed \$12,000 or \$15,000. No investment that the state could make would yield greater dividends in better schools.

We cannot get at this evil by talking about it or by employing makeshift methods. It is necessary to have a well organized, definite business administration, but such an administration must have adequate funds.

The business of the state is to educate all of its children—not some of them—as stated in the Constitution quoted above.

We shall never secure the education we should have by swinging the policeman's club. Attendance officers in schools should not be of the policeman type. They should be like social workers.

Women make fine attendance officers and more women should be employed as attendance officers in the state.

The attendance officer works, or should work, as a sort of go-between for the homes and schools. He—or preferably she—should in many cases help to clear up misunderstandings between the homes and the schools.

Where compulsory education laws are best enforced the attendance officers are of the social worker type.

The school system is an absolute failure as far as the children who do not to school or who go to school extremely irregularly are concerned. It should not be a failure anywhere.

No well regulated business concern would tolerate for a single day the loss that goes on in this state from irregular and no school attendance.

An attendance bureau would cooperate with the local boards of education and compulsory education officers all over the state.

It would endeavor to create a better public sentiment about school attendance. It would hold conferences with local attendance officers

in convention or otherwise. It would receive regular semi-monthly reports from every district in the state as to its attendance and enrollment, and it would cooperate in every way with local attendance officers, boards of education and principals and teachers to help secure better attendance.

It would attempt to build up an *esprit-de-corps* among attendance officers.

It could devise means for taking a school census of the children through the aid of the older children already in the schools.

Those who have studied the situation believe that the older pupils could keep track of all the children, particularly in the rural districts. This would furnish a valuable lesson in civics.

At any rate, this could be tried, and if it did not work out well a law should be passed providing for the taking of a regular school census every year.

We shall never solve the problem until we find what children there are and whether they are in school.

Some means of locating every child in the state and of determining whether or not he is in school, and if he is not, why not, should be found.

I do not see how it is easy to escape the conclusion that we should have means of bringing every child in the state into some school, either public or private.

I believe that it is the paramount duty of the Legislature to provide for the Department of Public Instruction a suitable attendance bureau.

Illiteracy and ignorance are the soil in which Bolshevism, anarchy and the Reds flourish.

We must not only make the work of the schools better, but we must have all the children in school. Good teaching and good attendance must be found everywhere.

These children who are not educated and who grow up in ignorance become the easy victims of all sorts of revolutionary agitators.

It is necessary to educate all the children, as the Constitution of the State provides—not some of them—if the State is to patriotically do its duty to itself and to its future citizens.

New Jersey will come to this sooner or later, for when the people understand the situation they will not tolerate for long this condition of affairs, which means the loss of hundreds of thousands of dollars and also the lack of school attendance for many children in the State.

The county superintendents and helping teachers were asked to

report to the Commissioner at the close of the year concrete cases where the compulsory education laws were not being enforced. They were asked to give the names of children who were not attending school or who attended irregularly. Their statements follow:

COUNTY SUPERINTENDENTS

Superintendent Henry M. Cressman, Atlantic County—In one township the board appoints a truant officer simply to meet the requirements of the law. They pay him such an insignificant salary that he can't afford to do anything worth while and it seems that the less he does the better they are pleased. The percentage of attendance in this district is always the lowest in the county. The leading spirit in the board of education acts upon the principle that the children who desire no education merit none. This man has the reputation of being very intelligent and domineers the township, politically and otherwise.

Superintendent Charles S. Albertson, Camden County—In the district showing the lowest percentage of attendance I am satisfied that all the children of school age were not enrolled. The board and the attendance officer were very indifferent as to their duties in this respect. The attendance was but 73 per cent of the "possible."

Superintendent Aaron W. Hand, Cape May County—All our boards of education appoint attendance officers. These men obtain from the teachers the names of absentees, and endeavor to secure attention to the law by persuasion, but hesitate to apply drastic measures, because usually they are dealing with neighbors or friends. . . .

In one township an Italian colony evades school attendance as completely as possible during the fall, in order to use the children at cranberry picking on the great cranberry plantations there.

Superintendent J. J. Unger, Cumberland County—It is next to impossible to enforce the compulsory education law as it stands at present. About the best we can do is to make a bluff at it.

The township with the lowest average for the year ending June 30, 1919, had a percentage of 77.01, which was more than 3 per cent. lower than the next lowest district, where the percentage was 80.37.

In the district where the attendance was poorest there is a colored school with three teachers. In this school the attendance averages very low. I find from my records that this colored school, owing to the epidemic of influenza, was open only 247 days last year.

Here are some flagrant cases of non-attendance:

A attended 44½ days; B, 74½ days; C, 29½ days; D, 43 days; E, 40½ days; F, 60½ days; G, 61½ days; H, 65 days; J, 65½ days; K, 38½ days; L, 49½ days; M, 50½ days.

Those whose names I have given are all pupils seven years old or more. This district had a compulsory attendance officer who pretended to be on his job, but I could never get him, even after considerable urging, to bring any cases to court. The result was that his visits to the colored district were of little or no avail in securing better attendance at school.

Superintendent D. T. Steelman, Gloucester County—In a district in which there are ten schools the supervising principal has been acting as attendance officer and the teachers have reported regularly the names of absent pupils. In many cases the five day notice was served upon the parents, but to my knowledge no arrests have been made in the past two years.

The population in the rural sections of this district is Italian and the chief occupation is farming. The farmers seem to feel that they have the right to keep their children from school whenever there is work to be done. Some members of this board of education sympathize with this thought and do not press the cases brought to it.

Superintendent H. Brewster Willis, Middlesex County—One district is a borough of many industrial institutions with a school census of about 1,000 children. This borough has a court in which such cases can legally be tried and penalties or prison terms imposed.

A statement of absences in this district contained the names of 21 children between the ages of 12 and 15 years, most of whom had not gone beyond the fifth year of work and had not entered the school during the school year up to May 6; and of 10 pupils who entered at the beginning of the year and left during September and October and who did not appear again up to May 6. A meeting of the board of education was called to consider this condition. The people were somewhat aroused and a few of these pupils appeared during some of the remaining school days of the year.

Superintendent Charles J. Strahan, Monmouth County—In our school census work last year we found a family of five children who had not been to school in two years. They were all of school age and had lived in New Jersey during the entire two years. They probably moved two or three times.

We also found a pupil 11 years of age who had not been to school more than two years.

Superintendent Charles A. Morris, Ocean County—The schools were actually in session 160 days on the average. The average number of days pupils were present was 120; average absence was 40 days. In other words, pupils are taking advantage of the school three-fourths of the time on the average. Essentially this same condition has held true for a number of years.

The chief factor affecting this irregular attendance is the entrance of many pupils late in the term. Much of this late entering is not necessary. . . .

In one township there was an attendance officer throughout the year but he was not active in enforcing the law except for a short time along in the spring. For the most part the supervisor of the district and the attendance officer apparently made little effort to secure regular attendance. This district made the poorest record in the county. . . .

One particular case arose in another district where the father of a boy about 12 who had not entered defied the officer, stating as his reason that the boy knew more than he (the father) did and it was not necessary for him to go to school longer. The case came to court and the father defied the court to make him send the boy to school. When the court imposed a light sentence, however, he was convinced that it would be wiser to obey the law.

The point of all this is that in the smaller communities the boards are slow to appoint officers for the most important period of the year, namely, the first few weeks, with the result that the term starts off without pupils and parents being brought to realize that they are responsible for regular attendance at school.

The statistics for last year bear me out in the above. The schools were in session an average of 160 days. The average number of days each pupil attended was 120. This shows that the average number of days each pupil was absent from school was 40, and of this number 20 days is accounted for by late enrollment.

Superintendent H. C. Dixon, Salem County—I give the information in tabulated form, designating the schools A, B, and C.

	A	B	C
Number enrolled in the school.....	16	16	6
Range of ages in years	8-16	9-16	11-14
Average age last September.....	12	12	13
Range of grades in which they are placed	1-6	2-8	3-5
Average grade	3 plus	5	4 plus
Highest number of days' attendance of any one boy	111	88	52
Lowest number of days' attendance of any one boy	12	14½	29
Average number of days' attendance to May 1	48 minus	46 plus	52

These are not isolated cases. Others could be given. And it makes very little difference whether there is a local attendance officer of the type we had had or whether there is none. It is needless to say that the boards where these pupils are found do not believe in attendance officers.

Superintendent Henry C. Krebs, Somerset County—In rural districts, as a rule, there is little or no effort made to cause children to attend school. In one case a boy 14 years old, the son of the local trustee, had usually been absent from school one-third of the time. When school opened in the fall, this last year, he did not want to attend, alleging that the teacher was not efficient. I know that she was *very* efficient. However, the boy was allowed to stay at home, and no urging on my part could induce the attendance officer (who was a fellow-member of the board of education) to serve a five-day notice. The result was that the boy stopped his schooling then and there.

In another case we found a whole family in which the children were usually absent at least 65 days in the year—one child having been present only 17 days in all. . . .

I believe a county supervisor of attendance would be able to carry out the law in an efficient manner, and that, until we have such an officer, the law will not be properly executed.

Superintendent Ralph Decker, Sussex County—The children of one township are very irregular in attendance and this makes a very poor showing for our school and reflects unfairly upon the children of our borough. Fol-

SCHOOL REPORT.

Following is a list of the attendance of the children of this township from September 1 to March 1:

		No. days	No. days			No. days	No. days
Name		present	absent	Name		present	absent
A	.....	43	67	G	.....	64	56
B	.....	21½	88½	H	.....	57	53
C	.....	52½	57½	I	.....	40	70
D	.....	29	81	J	.....	31	79
E	.....	25	85	K	.....	68	42
F	.....	21	106	L	.....	22	108

The matter has been reported to the truant officer of this township but no improvement has been made.

HELPING TEACHERS

One township has a yearly enrollment of approximately 65. This may be 10 more or less. Their average attendance for the year 1918-19 was 32. Their per capita cost on enrollment was \$57.51; on attendance, \$143.78. The latter figure includes the purchase price of a bus for transportation. Deducting this sum, the per capita cost on attendance is still more than \$112. . . .

Another township has an approximate yearly enrollment of 70. I visited their two one-room schools September 30, 1919, and found a combined enrollment of 27.

Henry, a moss gatherer, age 12, came out of the woods to prepare for the eighth grade examinations two days before the efficiency tests were given by the state. He attended school five days this past school year.

- A, second grade, attended school 56 days. No excuse.
- B, second grade, absent 110 days. Working.
- C, second grade, absent 42 days. Helped mother.
- D, second grade, absent 52 days. Just stayed home.
- E, second grade, absent 98 days. No excuse.
- F, age 12 years, third grade, working, 35 days.
- G, third grade, absent 53½ days. No excuse.
- H, third grade, absent 72½ days. No excuse.
- I, fifth grade, absent 52½ days. No excuse.
- J, fifth grade, absent 56 days. No excuse.
- K, has been in the same grade three years; during the past school year she attended school 69½ days; was tardy 8 sessions. Stays home to attend to the younger children. This year (1919-20) she has attended school 2 days out of 17 days.
- L, 40½ days present during the past year. No excuse.
- M, 29 days absent. No excuse.
- N, sixth grade, 60 tardy marks, 65½ days absent (working).

In one township I find:

- A, 14 years, third grade, absent 47 days—1918-19.
- B, 10 years, first grade, absent 61 days—1918-19.

This was a nine month school term. On October 7 they had not entered for this year.

In another township I found the following:

- A, 15 years, now third grade, absent 37 days—1918-19.
B, 14 years, now third grade, absent $71\frac{1}{2}$ days—1918-19.
C, 14 years, now third grade, absent $50\frac{1}{2}$ days—1918-19.

Last year we did not have one efficient attendance officer in the eight districts. As far as I know there was no attempt to hunt up pupils more than once a week.

If attendance officers did any work, it was because the teachers were pushing them hard.

- Two reasons for the non-enforcement of the compulsory education law are:
1. Attendance officer too well known, too sympathetic.
 2. Local board of education too easy-going.
-

This county has great need of better school attendance.

Our reports of last year show some very poor records. In a school in one township a girl of 11 years in the second grade has this record of attendance. She did not enter until December although reported weekly.

December, $10\frac{1}{2}$ days present.
January, 4 days present.
February, 1 day present.
March, 11 days present.
April, 4 days present.
May, $\frac{1}{2}$ day present.

This shows a total of 31 days.

There are many similar cases where our compulsory attendance officers seem to have entirely failed.

A boy 14 years old, whose birthday was given as April 19, 1904, entered school December 9, 1918, and left February 25, 1919, having attended school only 54 days during the year. He was placed in grade 5, but had difficulty in doing the work of that grade and of course was not promoted. The teacher tells me that she reported the case to the truant officer every time he called at the schoolhouse, which was nearly every other week. The report was circulated quite broadly that the boy's father threatened the truant officer when he called at the house. As far as I can learn no attempt was made to secure an age and schooling certificate for the boy.

This happened last year. So far this year the boy has not appeared at school and I personally saw that the name was sent to the new truant officer, who has just been elected.

This is only one of many cases where the truant officer absolutely failed to enforce the law. Those of us who are trying to help the boys and girls to catch up feel so helpless. We all hope that some solution of the problem may be reached.

In this particular district the truant officer's position is practically a nominal one and the salary is \$25 a year, which makes it unattractive for any

one. As a result, the attendance in each of the three schools was only 50 per cent. of the enrollment for this last school year, and there was one child in one school who attended school 8 days during 1917-18 and 2 weeks during 1918-19.

In addition to using a township as an illustration I know of an extreme individual case. The girl is about 16 years old and has attended school 2 days. As far as is known there is absolutely no excuse for this case.

In one school five children are enrolled from one family. The youngest is 7, the oldest 13. Their attendance last year varied from 9 to 79 days for the school year. The average attendance of the five was 45 days. In the same school another pupil averaged 23 days in school during the year. Parents when questioned give work as the excuse. Neighbors claim that the children do nothing and that the indifference of the parents is the sole reason for the children's absence.

In a second school four boys from one family stay home the first and last two months of every school year and two or three days regularly out of every other week in the year. In neither case cited do I feel that the school is at fault. Both schools were last year "live" schools. Both have attendance officers.

In two instances I have known parents to transfer their children to another school in the township when the teacher reported them to the attendance officer regularly.

In one township I found that one boy, age 13 or 14, was not in school last year and attended school but four days the year before. The school children say that he can neither read nor write.

In another township a number of parents took advantage of a change in school conditions and kept their children out of school.

A, age 10; B, age 8; C, age 12; and D, age 13 or 14, were out the entire year. E, age 13, was in school 2 days; F, age 11, was in 2 months; and G, age 10, was present about 3 months.

A family of four children, ranging from 7 to 13, did not attend school during the year 1918-19. These children formerly attended a school in an adjoining township, but near their home. Last year the teacher in the last named school supposed the children were in school in their own township. The children are now attending school.

A boy about 12 years of age, living in another township, has not entered school during the present year.

The truants of the rural districts seem to form themselves into groups.

1. Those who work on the farms and cranberry bogs who are under age.
2. Those who are indifferent to transportation.
3. Those who dilly-dally—in a day, out a day, just because they don't feel like going to school.

One township has several cases of each group. In group 1 are the following:

- A, age 9, not in this year as yet—attended 30 days last year.
 B, age 13, not in this year as yet—attended 30 days last year.
 C, age 9, not in school yet.
 D, age 7, not in school yet.
 E, age 13, not in school yet.

The children in one family are still out. They live within the mile limit but expect transportation, I believe. These children are truant, as they come to play with pupils after school is dismissed.

You will see that boards of education have difficulty in securing local officers who are willing to sacrifice the love of relatives and esteem of friends for a small sum.

The cases cited are from two townships.

A,	13	years	old,	86	days	absent.	No	valid	excuse.
B,	12	"	"	116½	"	"	"	"	"
C,	11	"	"	105	"	"	"	"	"
D,	9	"	"	103	"	"	"	"	"
E,	8	"	"	109	"	"	"	"	"
F,	7	"	"	166	"	"	"	"	"
G,	6	"	"	177	"	"	"	"	"

N. B. The mother became incensed because the teacher *kindly* asked if the children might not be sent to school cleaner.

H,	age	11.	Absent	entire	year.	No	valid	excuse.
I,	age	8.	"	"	"	"	"	"
J,	age	6.	"	"	"	"	"	"
K,	age	11.	Days	present	6.	No	valid	excuse.
L,	age	9.	"	"	5.	"	"	"
M,	age	8.	"	"	6.	"	"	"

N, age 10, resided in one district three months but did not attend school at all. She moved to another district and attended a few days only.

Children who come from various institutions and are "bound out" to farmers, are allowed by these institutions (contrary to law) to remain from school possibly a month at each end of school year. This time is extended to several months by the farmers having the children in charge. The children are behind the classes when they do enter and ambition is destroyed, in many cases, by knowing that spring's arrival will take them from school.

These children are unfortunate enough in not having their own home and parents, and should be given extra care and instruction to make them intelligent citizens and voters. This looks like a form of slavery.

As a concrete instance of negligence the following school is a fair type. This school is made up of Polish children almost entirely, whose names I cannot recall. These children are kept from school to help on the onion and celery meadows, the truant officer giving permission for them to do this. Judging from the amount of absence even during the winter, it seems to me that they use this excuse for any season of the year, and abuse it.

Another instance of negligence is in a family where there are four large boys, three of whom have not appeared at school this year, due to the fall

work on the farm. They were away a large part of last year.

Really there are many other localities where this is the rule. As one teacher puts it, "If the father is going to repair fence, one of the boys must stay home to hand him the hammer."

A bright girl 15 years of age, a pupil in a two-room school, was offered a position in a postoffice. She is the daughter of a well-to-do farmer and it was not necessary for her to work. She persistently stayed out of school after she had been warned by the attendance officer. She would come back to school after having been notified by the attendance officer but would probably be out of school again in a few days. It was a game of "catch me if you can" between the attendance officer and the girl. She was not in school long enough to become interested in her work. The attendance officer would complain that he had done all he could with her except prefer charges against the parents. But the attendance officer did not like to incur the displeasure of the parents and the girl became 16 with 26 days as her attendance through five months of the school year.

A bright boy 14 years of age helped in the railroad depot. He attended school $36\frac{1}{2}$ days during spring term (five months). He was antagonized by the truant officer with dire threats which were never put into effect. After the attendance officer had visited the boy regarding his attendance, he would return to school for a few days; then came a repetition of the truancy.

There were two boys and two little girls of school age in one family. The children were in school hardly half the time. The older boy's attendance was 68 days for the entire year, his brother's 109 days for the entire year; the little girl's attendance was a little better. The mother's excuse was that the transportation wagon was crowded, that the wagon left too soon, that the children were misbehaving on the wagon. This mother wrote to the State Department, meanwhile intimidating the attendance officer as to what she would do to him if he forced her children to go to school.

On several occasions members of school boards told me of the appointment of a local officer simply to comply with the letter of the law. He did not intend to act, many selfish and ignorant reasons being given for such non-action.

Family of 12 children, 8 children at home. Sanitary conditions at home bad—therefore much illness in family. Mother is industrious and does her best. Father lazy and drinks. Older children no schooling. Younger children never attended until after I brought case to court. Attendance since very irregular.

One boy has attended about two short periods in his life; now about 13 years old.

Family of 8 children, 5 of school age. Father refuses to allow children to walk to and from railroad station. Court sustained case and ordered township to confer with family but nothing happened. However, this family and another family have always attended very poorly or not at all.

Compulsory laws controlling attendance officers should be made with supervision by State Attendance Officer.

One boy, 12 years of age, reported to school on the first day of last September, attended 3 days and remained home for 10 days, claiming illness of mother. I visited the home and found the mother out working. Reported case to truant officer. On my visit the next month, found the boy had not been to school. I made several visits the next two months and was not able to keep the boy in school more than 30 consecutive days for the school year.

Three children of one home, ages 10, 9 and 7, respectively, remained at home nearly half the school year without any apparent reason.

I investigated home conditions and interviewed the board of education, but no results.

One great need in this county is a better enforcement of the compulsory education law. The more one looks across the vacant desks, the more one witnesses the struggles of the pupils to "catch up" after an absence of a day or several days, and the more one sees the inattentive and disinterested attitude of pupils, who after several feverish but unsuccessful attempts to make up lost work, find the struggle too great, the more urgently one wishes all children might have the opportunity to attend school regularly. We have truant officers, it is true, but they are busy men usually and fortunate in the number of their friends. Their popularity renders their task all the more difficult, especially when some member of the board of education or some friendly neighbor keeps his children out of school to set out onions or to pick strawberries or tomatoes. Nor is his task less embarrassing if the delinquents prove to be state wards in the home of a friend. A state official or a county truant officer who could be sufficiently paid to devote his whole time to the work would find himself less hampered in the administration of impartial justice and in the enforcement of the law.

VISIT-THE-SCHOOLS WEEK

The week from Monday to Friday, February 17 to 21, was observed throughout the state as "Visit-the-Schools Week." The following letter was sent out by the Commissioner to local boards of education, superintendents, principals and teachers.

I am designating, with the approval of the State Board of Education, the week beginning Monday, February 17, as Visit-the-Schools Week.

The custom of setting apart a certain week near the midyear for visiting schools was established two years ago. It is unnecessary to again give at length the reasons why the observance of such a week is valuable for the schools.

In brief, we need a closer co-operation between the schools and the homes. We need a better understanding on the part of the public of the work of the schools. Fathers and mothers need to know the teachers better. The public needs the encouragement which usually comes from visiting a school. The public needs to know, too, the vastness of the work of public education. And finally, the public needs to realize that the process of public education requires large amounts of money.

All these things will be brought home in a concrete, definite way to all who visit the schools.

Last year more than 30,000 persons made visits to the schools during the week.

At the risk of repetition the following suggestions to teachers and principals are given.

The older children, as a part of their work in English and drawing, should prepare invitations to parents and others to visit the schools. These invitations may set forth that while the schools are ready to receive visitors at any time this particular week has been designated as Visit-the-Schools Week.

The public, as a rule, is interested in the regular work of the schools. It is therefore recommended that teachers follow their usual schedules, except on the afternoon of Friday, February 21, when the usual patriotic services should be held. With this exception it is not necessary to prepare a special program for any day or session. The preparation of special programs, with rehearsals, would interfere with the regular work of the schools and might place a heavy burden upon teachers.

It is recommended, however, that the singing of our national patriotic songs be given a prominent place on the school programs of the week. Not only should *America* and the *Star Spangled Banner* be rendered, but such songs as *Hail, Columbia*, the *Battle Hymn of the Republic*, and *Columbia, the Gem of the Ocean* should be sung.

It would be very appropriate if the older children, with the teachers as chaperons, should on Friday, if the weather permits, sing patriotic songs in various neighborhoods out of doors—much as Christmas carols are sung.

Committees of children should be appointed to receive visitors, to explain to them the various activities of the schools, to see that they are provided with seats and places for their wraps. Children, as well as teachers, should act as hosts. This will be good social training.

Since many, especially men, may be unable to visit the schools in the daytime, one session might be held in the evening in those buildings which have lighting facilities. The work should be a duplication of a regular afternoon session.

A record should be kept of the number of visitors—men and women—and this record should be reported to the city or county superintendent. The older children of each school should take charge of making this brief report to the superintendent.

The board of education, superintendent, principals and teachers should see that newspapers give publicity to the week. Clergymen might be asked to give out notices concerning it from their pulpits on the Sunday preceding.

PURCHASE OF STATE NORMAL SCHOOL AT NEWARK

It is gratifying to state as a matter of record that after prolonged negotiations between the State Board of Education and the Newark Board of Education, \$500,000 was finally agreed upon as the amount which the Board would recommend to the Legislature as the price to be paid by the state for the Newark Normal School.

The price agreed upon was placed in the appropriation bill and was passed by the Legislature.

The state therefore has added to its normal school equipment one

splendidly equipped school. It is housed in a most beautiful building.

It would have been a calamity to the educational interests of the state if this action had not been taken. The school is the largest of our state normal schools and fills a need difficult to estimate in our facilities for the training of teachers.

Credit for this purchase should be given in no unstinted measure to the Legislature—particularly the Appropriations Committee—to the State Board of Education and to the Newark Board of Education.

EDUCATIONAL SUNDAY

“Educational Sunday” was quite generally observed in the state in accordance with the following proclamation, issued by the Commissioner and approved by the Governor:

To the Clergy and the People of the State of New Jersey:

It has been common of late years to observe one Sunday near the beginning of the school year as Educational Sunday. On this day the clergy and congregations of all denominations are invited to make their services appropriate to the general cause of education.

In the midst of war activities, which demand—and rightly—so much of our time and energies, it should not be overlooked that the training of boys and girls, by means of the schools, and in homes as well, is a matter of supreme importance.

Education is vital to the ongoing of society. It is preparedness for the future. It makes for the safeguarding of our citizenship. It increases human wealth. No other subject is of greater concern to the nation or to the parent than the education of children.

To give children and youth a more abundant life is the great purpose of the school. This is likewise the purpose of the church. It is also the ideal found in well-ordered homes.

These are truths widely recognized by thoughtful people.

The organized instruments for education are by no means perfect, for they are human institutions.

To make schools better not only requires greater intelligence on the part of school officials and teachers, but there is needed also consistent and ungrudging public support, to which should be added a larger realization of the enormous possibilities of education.

The war is revealing some of the shortcomings of education. Men and women with patriotic vision begin to see that illiteracy is not done away with; that the Americanization of all the people has not been accomplished; that physical education has been too much neglected; and that the period of education should be extended.

An enlarged program of education is one of the necessities of the time. England and France see this and are preparing to meet it. It is the part of wisdom for us to recognize this necessity, great as our progress has been.

Not only is the sound education of all the children and youth their right,

but it is the duty of the State to see that they get this education. For the State and society this is no other than a wise investment.

The training must not only be material; it must also be intellectual and moral and spiritual, for these are fundamental in the creation of human wealth.

The schools have done a wonderful work in the conservation of our democratic society—never more wonderful than in the past year when there has been so much going on opposed to the conventional processes of education.

It cannot be said with too much emphasis that the schools have responded splendidly to the demands of the war time.

There has been throughout the schools of the State a new seriousness and also a new joy. This seriousness and joy have been called out by the ideal of service to men and to country.

The spiritual energies of teachers and pupils have been quickened by the war activities found in greater or less degree in every school.

Much more, however, remains to be done in the educational program of the State, and to do it are needed the co-operation and whole-hearted support of all men and women.

The near future, indeed, is not without anxiety. War demands are likely to increase; a scarcity of teachers is already apparent; many women as well as men have already withdrawn from teaching; there may be a public disposition to curtail educational facilities.

But although our first task is to win the war, the education and training of children and youth must go on impaired as little as possible.

After the war is ended great problems for the reconstruction of the world must be met and settled. These will be of unparalleled difficulty.

The United States will be called upon to make a large contribution to a wise readjustment of the world's affairs. Educated, intelligent and trained men and women—always essential to a democracy—will be more than ever needed in the near future.

As far as is compatible with the immediate purpose of winning the war, our higher institutions, as well as our elementary schools, should be kept going at the maximum of their efficiency, in order that our leaders may be trained leaders and the masses of the people may be intelligent.

In the long run our plans and processes of education depend upon the degree of popular support and interest accorded them. As one means of further enlisting this support and interest Educational Sunday has been established.

It is therefore recommended that Sunday, October 13, be known and observed throughout the State as a day in our churches for the consideration of this great enterprise.

*With the approval
of the Governor*

C. N. KENDALL,
Commissioner of Education.

PHYSICAL TRAINING

Attention is called to the report of Dr. F. W. Maroney, director of physical training in the state, which follows.

The physical training law was enacted by the Legislature of 1917. It provided, in part, that two and one-half hours a week should be

given to this form of training, and that the Commissioner, with the advice of the State Board of Education, should prepare a course of exercises or study.

In 1918 an appropriation was made by the Legislature to maintain this form of physical training. This enabled the Department to employ Dr. F. W. Maroney, director of physical training in the Wisconsin State Normal School at La Crosse, and formerly of Lawrenceville and Newark in this state, to supervise the work in the state.

We were fortunate in every way in securing Dr. Maroney. Not only is he well equipped by training and experience to teach physical training, but he has the degree of doctor of medicine.

Miss Marianna G. Packer, formerly supervisor of physical training in Montclair, was also employed and has rendered excellent service.

Physical training has greatly enlivened the schools. It has steadily accomplished its purpose of making our pupils physically fit. Pupils are becoming upstanding pupils. The law is popular.

Not the least of its benefits is its effect upon teachers. These teachers have really become younger because of the fact that we have this physical training law. Its operation in our schools has been in every way beneficial.

Because we have this law the future citizens of this state will be healthier and more enduring men and women.

As to the future program of health instruction in the state, we need additional help. Dr. Maroney should be relieved from actual classroom instruction and should become health adviser in the New Jersey schools and have the supervision of medical inspection throughout the state.

In many districts medical inspection is by no means what it should be, and there is much criticism of the law, particularly in rural sections. If Dr. Maroney could give a considerable portion of his time to medical inspection many of these objections would disappear.

We ought to employ two more men—one in the northern part of the state and one in the southern part of the state—who would constantly be in the field, under the supervision of Dr. Maroney, to carry out the provisions of the physical training law.

We have an excellent law in New Jersey. We have an excellent course of study. We have the hearty cooperation of teachers. We have the support of the public for this form of training. We have the enthusiastic support of the children. But what we need, looking

forward to the health of the children, is better medical inspection, better physical conditions in the schools, and more effective teaching of health and physical training.

These 600,000 school children should have the best instruction in physical training that is to be had. It is to the interest of the state to furnish this instruction. No money invested by the state will bring better returns than money spent for the health of the children, including physical training.

REPORT OF FREDERICK W. MARONEY

The following report for the year ending June 30, 1919, is respectfully submitted. I wish to thank the members of the Department, the school officials, and the teachers, all of whom have done so much to make our physical training effective.

It is recognized by physical training teachers generally throughout the United States that the New Jersey physical training law is comprehensive and practical. The law, while it is far reaching in its conception of the privileges and responsibilities of citizenship covered by the so-called informational subjects, emphasizes the importance of physical training as a part of a school health program and as a factor in the promotion of school discipline and character development. It has been my privilege throughout this school year to interpret the various phases of this law and to bring its many possibilities to the attention of the teachers, pupils, boards of education, parent-teacher organizations, and business men's clubs.

The policies of practically all our cities and of a number of smaller communities, which have for some time past employed special physical training teachers, school nurses, and health supervisors, have stimulated many of the remaining districts to the use of these same agencies.

It seemed advisable for me to direct my energies along certain lines of work to insure something in the way of definite results.

COUNTY PHYSICAL TRAINING INSTITUTES

County Physical Training Institutes, called by the Commissioner of Education, were conducted in each of the twenty-one counties. They were attended by county superintendents, city superintendents, supervising principals, principals, physical training teachers, and all teachers to whom physical training work had been assigned.

The program consisted of an introductory talk, the purpose of which was to emphasize the importance of the physical training activities as a part of the regular school curriculum. After this I taught four gymnastic lessons to high school boys, high school girls, and elementary and primary school children. This practical demonstration was to clear up any misconception of just what our policy of "work through the spirit of play and good cheer" meant. Physical training lends itself to visual instruction as perhaps no other subject in the school program does. The demonstrations were followed by a conference and discussion of the material used, its application to local conditions, and the solution of time and space problems common to all systems.

There was a general response of co-operation at all these gatherings—

Girls' Hockey Squad

Relay Race

Seventh Grade Girls

MERCHANTVILLE PUBLIC SCHOOL

Free Hand Work

SHILOH, CUMBERLAND COUNTY

both the children and the teachers present entering heartily into the spirit of the meetings. That this type of meeting met with the approval of school authorities was evidenced by their arranging similar meetings in local school systems for the benefit of all their teachers.

TEACHERS' INSTITUTES

Physical training talks and practical demonstrations of gymnastic teaching were given at the Teachers' Institutes, which were conducted both before and after the influenza epidemic.

NORMAL SCHOOLS

Through the cordial invitations of the Normal School principals it has been possible for both Miss Packer and me to spend at least one day a month in these schools. This gave us an opportunity to point out to the normal school students the physical training problems as we found them in our school visitations. We spent our time in the normal schools doing actual teaching of classes.

At our suggestion, the physical training teachers in the normal schools have entered into a plan to unify the work, to make a more thorough use of the state monographs, and to bring to the attention of the students the health clubs and similar organizations which are doing such fine work in many counties of the state.

PARENT-TEACHER ASSOCIATIONS AND SCHOOL BOARD MEETINGS

During the school year I have attended many meetings of school boards and parent-teacher associations. Whenever possible the school authorities have kindly furnished demonstration classes. Experience has taught me that it is very desirable to show the parents and the board members just what we are striving for in our physical training work, for there seems to be a popular conception that physical training consists principally of setting-up exercises.

Rational physical training, in addition to stimulating the vital forces in the body and so make for better health and the development of character and high ideals of service and loyalty, should inculcate health habits and a love for the out-of-doors which will carry through after the child has left school and gone on either to higher institutions of learning or into business life.

The increasing number of hours for recreation, through the shortening of the working day and the daylight saving law, has made imperative a policy of education for recreation.

Physical training with its manifold possibilities, such as football, baseball, volley-ball, basket-ball, hiking, swimming, skating, dancing, running, jumping, etc., will do much to furnish the people with healthful ways of spending this extra time.

In Camp Sherman it was discovered that 75 per cent. of the men did not know how to play. Two hours a day were spent in organized play as a part of their training. Thirty minutes a day is the minimum of time that should be spent in play during the school day.—*School Life*, II:2; May 16, 1919.

HELPING TEACHERS AND COUNTY SUPERINTENDENTS

The helping teachers have entered into the physical training work with excellent spirit. They have been aided and supervised by Miss Packer, whose splendid example has done much to maintain interest and arouse enthusiasm for this department of the school activities in our rural schools.

The county superintendents have given generously of their time and energy in arranging meetings, in promoting the health-habit practices, and in showing by precept and by example that they are in sympathy with the workings of the physical training law. To a very great extent we have been able, through their interest and enthusiasm, to do much for the children who attend schools in districts where no regular physical training teachers are employed.

SUMMER SCHOOLS

In the state summer schools at Ocean City, Collingswood and Newton the physical training work was taught by trained teachers. It was my privilege to visit these schools, to address the students, and to teach classes. I believe that the summer school work is of great value in giving to the teachers who attend and visit not only new material, but also an opportunity to grasp the spirit of the work which is essential to its success.

Rutgers University opened a school for physical training teachers as a part of its summer school organization and appointed me to direct the work. There were forty-two physical training teachers registered for the course this past summer.

COUNTY FIELD DAYS

Many of the counties conducted field days during the months of May and June. The work was of high order, the programs attractive, and the interest keen. The physical activities of the children, including games, dancing, running, jumping, gymnastic drills and other exercises, appeal to the parents. We should do much more of this kind of work, not only to popularize the physical side of the child's education, but also to help interest the public at large in this phase of our health program. We are living in the days of visual instruction and much can be accomplished by using these fete days and field days to instruct children and parents in the healthful forms of recreational activity which are so necessary to their well-being.

MEDICAL INSPECTION

Medical inspection is a very important department of our school health program and is closely related to our physical training work. In fact, an ideal system of physical training would presuppose a thorough medical inspection so that the child's activities might be directed in the way that would be most advantageous. The prescription of exercise to correct physical defects is within the province of the medical inspector. The statement, so frequently made, that our entire system of medical inspection is a farce, is not borne out by my inspection of many school districts. The great majority of men who have this work in hand are capable and painstaking. It is acknowledged by all that too much is expected of them and that they are underpaid.

In my opinion, each school district should have a medical inspector for every 6,000 elementary school children and one full-time school nurse for every 1,200 children. We need the medical inspectors and it would be a mistake to permit school nurses, or to employ school nurses, to do this work.

Constructive legislative measures which would result in securing adequate compensation either from the state or from local boards would do much to raise the standard of the work. Cards and printed forms, which could be

uniformly used, would do much to systematize the work, but the most essential thing is to make these men feel that their efforts are appreciated and that we, as school people, realize the very worth-while service which they render the community in safeguarding the health of the school children.

Without exception, the medical inspectors recommend the employment of school nurses, or health supervisors, to help follow up the medical inspection, not as a charitable work but as an educational procedure and as an economic measure. Children who feel well will learn more quickly and progress more rapidly than those who are handicapped by some remedial defect.

NEW JERSEY PHYSICAL EDUCATION ASSOCIATION

The New Jersey Physical Education Association was organized during the past year because it seemed to those of us most interested in physical training that there was need for a closer relationship between the physical training teachers of our state than has existed in the past. The Association membership includes teachers in public schools, private schools, colleges, normal schools, Y. M. C. A.'s, and athletic clubs.

The first annual convention will be held in Newark during the month of December, 1919, and it is planned to make it as practical as possible so that the teachers attending will profit by the demonstrations offered.

NEW JERSEY STATE INTERSCHOLASTIC ATHLETIC ASSOCIATION

The purpose of the New Jersey State Interscholastic Athletic Association is to foster athletic competition in our public and private schools. The officials divide the state so that sectional championships in football, baseball and basketball may be conducted. An executive committee decides the question of state championships.

I believe this Association is a power for good. The athletic coach gets closer to the boy, perhaps, than any other man on the school faculty and his position enables him to do much in developing the right attitude toward athletics in our schools. Being associated through this organization with other men in similar positions makes for a mutual elevation of standards and a higher appreciation of the ideals which may be inculcated through fair play.

GENERAL REMARKS

There never has been a time in the history of our country more propitious for a wide-spread campaign to popularize the subject of physical training. The lessons of the war, the academic and economic losses to our communities as the result of disease which to a great extent is preventable, will all too soon be forgotten unless we capitalize our experiences. There is no short road to health or to physical well-being. We raise or lower the standards of our resistance to disease by our daily habits of eating, sleeping, bathing, working and exercising. Physical training is only one phase of a health program but it is an important phase. Daily exercise is essential for the health of the teacher and the pupil.

The school authorities throughout the state feel that the physical training work is well worth while in the schools. But physical training is not a subject that every grade teacher can handle without the help and supervision which is possible when there is a trained physical training teacher on the faculty. School boards should, in so far as their funds permit, employ train-

ed physical training teachers if they wish to realize the maximum benefit from the work.

Physical training means more than muscular development and the winning of games. In its broad conception it includes both of these and results as well in the developing of character, the spirit of fair play—so vital in our business world of to-day—and the forming of health habits which will make for happier and healthier children.

ENLARGED OPPORTUNITIES FOR HIGHER EDUCATION IN NEW JERSEY

There were two events of wide significance during the year in connection with higher education. One was the opening of the New Jersey College for Women as an affiliated college with Rutgers, at New Brunswick, and the other was the beginning of the Junior College in the City of Newark.

In the Commissioner's report for 1913 occurred the following statements under the title "Some Educational Needs of the State:—"

An opportunity in the State for the higher education of women. Such an institution of the right sort would react favorably upon both the elementary and high schools of the state. New Jersey is the only great American commonwealth in the northern half of the country, from the Atlantic to the Pacific, without a college or university open to women. One of the very rich men of the state could use his money to no greater advantage than to adequately endow such an institution, either a new one or in connection with an existing institution, and make it free of tuition cost to the young women of the state. Such an institution should not merely offer instruction along traditional lines, but it should also offer both instruction and training in those activities which are of special value and interest to women, not overlooking the home. Such an institution should train teachers for secondary schools, and train them adequately, first by means of theoretical study of education, and second, by means of opportunities for practice teaching.

The New Jersey College for Women was founded by "The Trustees of Rutgers College in New Jersey" in April, 1918, as a department of the State University.

A lease was taken upon a most desirable estate which comprised eleven acres of ground and a fine old brown stone mansion containing twenty-two rooms. The large house adapted itself readily to the purposes of a school building and during the summer it was completely renovated.

Shortly after acquiring the first site the Trustees secured another desirable piece of property nearby. This was the Cooper house and grounds, which were renovated so as to make a very acceptable dining hall and dormitory.

The College opened September 18, 1918, with an enrollment of fifty-four students.

Two distinct courses of instruction were offered by the College, one the liberal arts and general science course leading to the degrees of A. B., Litt. B., or B. Sc., and the other a course in the practical arts or home economics, leading to the degree of B. Sc. Twelve students elected the course in home economics and forty-two chose the liberal arts.

The faculty during the first year was composed almost entirely of professors from the Rutgers College faculty.

No state scholarships for women were available during the first year but three were created on private foundations.

With one or two exceptions every student has come to this new College with a definite purpose and expects to prepare herself for a position immediately upon graduation. Those interested in the College feel that the institution will grow so rapidly that it will be hard to accommodate the students unless it receives the support of the state in the splendid work that is being undertaken. A new dormitory to accommodate 150 students is absolutely necessary for the fall of 1920, and a new recitation hall will be required for the year following, as well as maintenance funds for both years.

The establishment of this institution for the higher education of women marks a new era in the educational history of New Jersey. The College deserves the financial and moral support of everybody who is interested in higher education for women. New Jersey has been conspicuous among the states as lacking such opportunities. It is pleasant to record that these facilities for the higher education of women have now been established.

The Newark Junior College is planning at present to do two years of college work. For some years a number of the graduates of the high schools in Newark and vicinity had returned to take what was called postgraduate work. Bearing in mind the demands of this increasingly large number of pupils, the school authorities in Newark established at the South Side High School in that city in September, 1918, the Junior College. Fifty pupils were registered, all of whom were graduates of four-year approved high schools. The plan of admission included students of three types: first, matriculated students, comprising those who could meet or had met the entrance requirements of senior colleges; second, those who had not successfully met all entrance requirements and therefore had some conditions, but not more than two; third, special students, graduates from high schools, who desired to pursue college subjects but who did not intend to work for a degree in a senior college.

The program of studies covers the range indicated by the foregoing enumerated courses. It includes English, the classic and modern foreign languages, mathematics, sciences, the social studies, philosophical subjects, public speaking, physical training and hygiene, and the commercial studies of the secretarial course. All the courses are of college grade and are not high school courses with supplemental work, as in junior colleges of a different type in some western states. They correspond in scope and character to the freshman and sophomore courses given in colleges of the highest rank throughout the country. Although given in a building where there is a high school, they are in no way connected with this institution, but are courses of distinctly higher grade than those in secondary curricula.

The life of the College is its own, although under the same roof as the high school. The recitation hours are different, covering a range from 8.30 a. m. to 4.30 p. m. on each school day. The assemblies are of College students only. The students have their own recitation and study rooms, their own athletic teams, their central College organization, to which every student must belong before he can join any other club.

The faculty is composed of thirteen members, six of whom give their time exclusively to the College, while the others have programs of high school and College subjects. Four are ranking heads of departments in the high school. Twelve have done post-graduate work and hold the Master's degree, while three hold the degree of Doctor of Philosophy. They are all teachers of successful experience and excellent records. Some are authors of books and contributors to periodicals, and active leaders in their profession. They are skilful instructors, devoted to their work and ambitious to make the College successful.

The New Jersey State Board of Education has accorded its official approval to the College, and seventy-one of the leading colleges and universities have expressed their willingness to give credit to those students who fulfil the entrance requirements and sustain themselves in the advanced work.

REPORT OF STATE CLUB LEADER

Although Mr. A. M. Hulbert does not work under the direction of this Department and is not appointed by this Department, yet his work as State Club Leader is so closely allied with the schools that it seems appropriate to print in this report a summary of his activities. This summary he has prepared at the instigation of the Commissioner.

In compliance with your request that I prepare a brief summary of the activities that have been carried on in New Jersey in co-operation with the public schools through boys' and girls' club work, I submit the following:

I desire to express my appreciation of the splendid cordialty with which the state and county leaders have been received by superintendents and teachers everywhere in the state. Both in letter and in spirit have the memoranda of agreement that have been entered into between the Department of Public Instruction and the Extension Division of Agriculture been carried out.

During the year that will end November 30, junior project work has been organized in eighteen counties in fourteen projects. The distribution by counties and projects is as follows:

SCHOOL REPORT.

CLUB MEMBERSHIP BY COUNTIES AND PROJECTS FOR 1919

Counties	Baking	Calf	Canning	Cooking	Corn	Cow	Garden	Pig	Potato	Poultry	Rabbit	Sewing	Sweet Potato	Tomato	Totals
Atlantic			57		62		87	76	19	20			28	8	357
Bergen			46												46
Burlington	17		7	19								30			73
Camden	132		78	3	109		244		137	11		133			847
Cape May			63		5		63			5					136
Cumberland	25	9	53	22	21		291	41		95			24		581
Essex		1			58		2	11		16					83
Hunterdon	14	8	33	35			97	14		55	3	39			298
Mercer		15	238		10		108	51	6	59					487
Middlesex			41				9	12		2		4			68
Monmouth		1	226	12			166	6		25		57			493
Morris			126	20	4		817	18		94	27	199			1305
Ocean			125	98			369	64		121		175			952
Passaic			54				53								107
Salem		4	22				186	13		3					228
Somerset	21		28	37	2		73	8		33	1	62			265
Sussex		10	17	27			158	19		42					273
Warren		51	88	39		6	593	24		145	47				993
Totals	209	99	1302	312	271	6	3316	357	162	726	78	699	52	8	7597

The work has been administered by the Extension Division of the State Agricultural College, through the office of the State Club Leader, with the help of two assistant state leaders. In four counties it has been carried on under leaders employed on full time. In eight counties there have been leaders working on part time during the months that the schools have been in session, but these leaders devoted their entire time to directing and supervising the work during the time that the schools were closed for the summer vacation.

A brief summary of the activities of these state and county leaders show some results as follows:

Club or group meetings.....	871
Field meetings for instruction, etc.....	435
General meetings	1,331
Demonstrations before groups	295
Personal visits to plats or homes	2,972
Club exhibits held	101

Club or group meetings, field meetings and demonstrations before groups are designed always with the thought of making them educational in character and for the purpose of emphasizing some specific feature of the project under consideration. Personal visits to the plats or homes of individual boys and girls from the standpoint of the leader of the work is a slow way of making contacts but from the side of the boy and his home is a most helpful way of meeting problems. The leader comes to know at first hand the conditions under which the individual boy or girl lives; he may learn something of the social and economic handicaps that the boy has to meet; he can better understand the difficulties and discouragements that have to be overcome. Personal visits of leaders often put them on friendly terms with parents which result in the removal of prejudices from their minds and the establishing of confidence and co-operation. General meetings are such meetings as community gatherings, parent-teacher associations, farmers' institutes, meetings with teachers and supervisors, etc. Talks by state and county leaders are always given with the thought of getting before the people of the community the character of work that is done under the junior project, the relation that it bears to the home, the school and the community. Its value as an educational factor in the life of the child is also emphasized.

An interesting project that is well organized and that is becoming very popular, especially in the rural communities and among the helping teachers, is the hot school lunch. This work is in charge of Miss M. Ethel Jones, assistant state leader. It was started by her in Sussex County, working in co-operation with Miss Farber, the helping teacher, in the fall and winter of 1917-18. At that time some simple demonstrations were given as an incentive to show how the work might be carried on. These demonstrations were given mostly in one-room schools, and the cooking was done on top of the heating stove. As a result four or five schools decided to undertake the work. The next year this work was further carried on by demonstrations given to the teachers and in the schools. Fifteen schools are now doing this work. The results show that there has been no financial loss. The older girls are very much interested in doing the work and it does not seriously interfere with the school program but rather supplements it. The same demonstrations were given in four different schools in Monmouth County two years

ago. Two of these schools are still carrying on this work. Two schools in Warren County have undertaken the project.

As an outgrowth of the canning club work undertaken at the Washington high school, they are undertaking the serving of one hot dish at the noon hour this winter. Liberty Corner in Somerset County was able to get this work well started last year and it has proven so satisfactory that it is a real model to others schools. Four schools in Burlington County are undertaking the work this winter. The Cinnaminson School, outside of Riverton, did cooking and baking club work all last winter. The serving of the hot dish is an outgrowth of this work.

Much interest is being shown in this project in many rural communities, as is shown by the number of requests that come into the state office from teachers and patrons of the schools.

Warren County is a splendid example of what can be accomplished through co-operation. The county superintendent of schools, the helping teachers and the teachers have been of great assistance to the state and county leaders. As a result there has grown up a general interest in the work throughout the county. A committee of interested citizens of the county, of which the superintendent of schools is a member, has been formed to help carry on the work. The committee has furnished funds for caring for the expenses of the county leader. They act in an advisory capacity in determining the projects that should be undertaken in the county, assist in planning and carrying out a program, etc. The work in this county is typical of what is being done in many others.

Another project that is becoming very popular with the girls, especially in the small rural community schools, is that of sewing or garment making. During the war, work in this project was done in co-operation with the Junior Red Cross.

It has become the practice to hold at Rutgers College some time during the year a boys' and girls' meeting, known as the Annual Achievement Days. Last year this meeting was held on June 13 and 14. There were about 250 boys and girls in attendance, representing thirteen counties. The expenses for the trip were met by the several counties. The College opened the dormitories for our use. Arrangements were made also whereby all the meals were served in Winants Hall. The program was educational in character, being designed to acquaint the young people with the various departments of Rutgers College as well as the State College of Agriculture and the Women's College.

The Eastern States Exposition of Springfield, Massachusetts, has for a number of years offered free trips from the ten eastern states to the exposition. This year a junior agricultural camp was held on the grounds of the exposition, for eight days, from September 13 to 20. New Jersey was represented in that camp by nineteen boys and girls, three state leaders and one county leader, representing thirteen counties. The object of the camp was not only to offer an award to the boys and girls who had done worthy and creditable work in their various projects but it was planned in such a way as to have a distinct educational value.

For a number of years the Interstate Fair at Trenton has shown an interest in the work that is being done in agriculture by the boys and girls of the state. Through financial co-operation furnished by the fair management it

Mass Drill

Folk Dance

Fifth Grade

PHYSICAL TRAINING IN VENTNOR CITY

SCHOOL GARDEN PRODUCTS--LEONARDO

was possible this year to take over 250 boys and girls from eighteen different counties for a day's trip to the fair. Each day there was put on an educational program consisting of work in judging and demonstration in both agricultural and home economics projects in which all the work was done by the boys and girls themselves, and was designed to exemplify the kind of work that they had been engaged in during the year.

It has become the custom for local communities and counties to hold educational exhibits. These times are made occasions not only to emphasize the importance, educationally and economically, of the work the boys and girls can do and are interested in, but they are used as community get-together days, when community interests are put into the foreground and the rendering of a larger social service through co-operation is given the emphasis. In this type of work there has been co-operation of county superintendents of schools, teachers, and the extension forces of the State College of Agriculture.

Ocean County is a splendid example of work of this type. No less than fourteen community meetings of this character were held in that county during the past year.

Junior project work so far has been confined chiefly to the rural sections of the state and an effort has been made to reach the boys and girls living in the most isolated places. As funds become available and a working force adequate in size is brought together, we hope to be in a position to render service in the more thickly populated sections that may desire such service as we are able to give.

THE STATE MUSEUM AND THE PUBLIC SCHOOLS

The following article has been contributed, at the request of the Commissioner, by Miss Helen C. Perry, Curator of the New Jersey State Museum.

Three years ago probably only a few of the public schools of the state knew of the existence of the New Jersey State Museum. Today Trenton schools are visiting the Museum at the rate of thirty or more classes a month, and, on an average, five lending collections are being sent out daily to schools of the state, outside the city of Trenton. Already, in the first six weeks of this school year, the demand for lending collections has almost tripled. All of which would seem to prove that the museum is filling a necessary place in the educational program of the state.

If the museum is helping the schools, it is because the schools have first helped the museum. It was the requests of the school themselves that guided the museum in the selection of educational material. It was the busy teachers who oftentimes made outlines for school exhibits or arranged lantern slide lectures. Volunteers from the Normal School conducted the children's daily "Story Hour." Pupils of the Trenton schools collected pictures, insect specimens, and fresh wild flowers to help the museum at various times. It is the sustained interest and co-operation of the teachers and pupils of the state that have made the growth of the museum possible.

The museum started its educational work by simply inviting the local schools to make use of its permanent natural history and industrial collec-

tions, and the special exhibits held from time to time. Later each school was asked to appoint a museum representative, and through occasional conferences these representatives were kept in touch with the work of the museum, and asked to make suggestions for the further practical co-operation of museum and schools.

Two years ago beginnings were made toward collections which could be lent to schools of the state outside the city of Trenton. At first only a few rather dingy bird and animal specimens were sent out. Gradually industrial process charts, natural history cases, lantern slide lectures and motion picture films were prepared and advertised cautiously, so that the demand might not too far exceed the supply. This autumn the first printed bulletin of lending collections was sent out to schools all over New Jersey, and the response has rather appalled the small museum staff, who are struggling valiantly to keep up with it. That bulletin contains lists of 125 lantern slide lectures, 30 motion picture films, 15 cases on natural history subjects, and industrial process charts representing more than 30 industries. Of course each of these is duplicated many times—as often, in fact, as is necessary to keep up with the demands of the schools. Besides this, there are several hundred pictures on natural history and industrial subjects, designed especially for schools who do not have lanterns for showing slides.

The museum lends these teaching materials as a library lends books. One natural history case, four industrial process charts, twenty pictures, two motion picture reels, or one lantern slide lecture, may be borrowed by each school, kept for a month, returned and exchanged for other exhibit material. The only expense to the borrower is the slight cost of transportation. Another year it is hoped that even this expense may be eliminated, thereby increasing the circulation in small schools which cannot afford even the transportation charge.

The museum is now reaching the schools in still another way—through community centers. A series of exhibits, similar to the larger natural history and industrial exhibits in the museum, have been so arranged, with labels complete, that they can be sent out to libraries, granges and other community centers, kept for a month, and then exchanged for other material. These exhibits reach not only the school children, but their parents as well.

The museum is looking forward to enlarging its program as rapidly as funds and space and working staff can be increased. Exhibition space in the permanent museum should be much enlarged so that the large collections now stored in the basement could be displayed. More industrial processes should be arranged so that the exhibits would be of commercial as well as educational value. Storerooms, workrooms and classrooms should be added. Lectures and exhibits should be planned to correspond with the study courses of local schools. Lending collections should be duplicated and new ones added. Story hours, children's clubs and junior museum work should be encouraged. And additional funds and workers are needed.

Our neighbor states, New York and Pennsylvania, already have large, well-organized educational museums, with the splendid support of the state behind them. The New Jersey State Museum is still young in its educational work, but if its usefulness increases with each demand made upon it, its growth should be phenomenal. It is hoped that the teachers of the state will continue to be generous with interest and suggestion, in order that this growth may be in the right direction.

SCHOOL LIBRARIES

During the past year 684 schools applied for school library money. The majority of these applications were from rural schools.

The grade of books on the lists submitted for approval showed marked improvement.

Both the increased number of applications and improvement in book selection is attributed largely to the interest and aid of the county helping teachers and county school superintendents.

Ten years ago few rural schools owned any books for supplementary or correlative reading, and were able to teach the children only the outstanding bare facts as given in cut and dried textbooks. With the adoption of new textbooks which made suggested reading a large factor in teaching, and with the issuance by the State Department of Public Instruction of monographs on various phases of teaching which called for outside reading and which included extensive bibliographies, it became apparent that the lack of libraries in rural schools debarred them from employing new methods in teaching or making use of the monographs published by the state. New and enthusiastic rural school teachers immediately set themselves to remedy this defect. The applications for school libraries increased and books necessary to modern methods of instruction took the place on the lists of indifferent and sensational sets of books written at so much per page.

The ideal—or even standard—for rural schools cannot be reached until every rural school has been aroused to secure its school library money each year and thereby build for itself a library which will enable the teacher to adopt modern methods of instruction and teach boys and girls to find information for themselves and to appreciate the value of books.

In towns with public libraries schools should depend on these libraries to supply general and correlated reading. These two factors for public education—the library and the school—should work in the closest harmony and cooperate in every way possible, the school-teacher bringing to the library specialized knowledge of children and methods of instruction, and the librarian bringing to the schools specialized knowledge of books and their adaptation to subjects. The school, although the most lasting and formative influence in a child's life, can hold him for only a few years, but the efficient school-teacher, through cooperation with the public library, can send the boy and girl from school so imbued with the love of books and knowledge of their value and so familiar with the methods

of the public library and appreciation of its value as a source of public education that the boy and girl will as man and woman continue their education through life. That is the greatest thing which can be done for the 80 per cent leaving school before high school age.

The rural school-teacher may accomplish the same end with a well chosen school library and by constant reference to the Public Library Commission for special aid and books for general reading.

The well chosen rural school library enables the country school-teacher to vitalize each subject, to give the children the stories, the dramatic aid, the special subjects, the training in debating, the intimate friendly knowledge of far places and strange peoples, with the interest and proficiency of the best equipped city schools; it makes of the country schoolroom a life's workshop instead of a dreary canning factory of dried and assorted facts.

The increased demand shows that country school-teachers have come to this realization.

Many teachers who have served an apprenticeship in country schools and passed on to principalships in towns have, by their efforts in raising money for school libraries, by their intelligent selection and buying of books, and their aptitude in relating books to subjects and life, left in each community where they have taught a sense of the value of books, a community spirit, and a desire to further education that has led to a neighborhood awakening and the establishment of a community center and library which has enabled not only the boys and girls but also the fathers and mothers to continue their education.

To teach without a library is to make bricks without straw, to fight a battle without artillery, to raise a crop on an untilled hillside without fertilizer.

VICTORY BOYS AND VICTORY GIRLS DIVISION OF THE UNITED WAR WORK CAMPAIGN

On October 31, 1918, the Commissioner issued the following circular to school officials of the state.

You have received explanatory circulars concerning the drive to be made during the week of November 11 to 18 for another war purpose—the Earn and Give Campaign.

This is one more call upon the schools for war service. The schools have responded so well in the past to various causes that the response now to another call will be equally enthusiastic, earnest and successful.

It has become a habit to New Jersey teachers and pupils to respond eagerly to all calls.

The campaign has been worked out so that boys and girls will have a suitable time in which to earn the \$5. They will have a purpose in earning it.

Five dollars will give comfort and cheer for five weeks to one of our soldier boys. Of course contributions of a less amount than \$5 will be thankfully received.

The drive will appeal to all teachers of English as giving abundant opportunity for oral and written work. It will also be a good opportunity to utilize four-minute speakers.

One of the most gratifying things about this campaign is that the various organizations are working as a unit.

The details of the whole matter can be obtained from the county chairmen. More than half of the county chairmen of this campaign are either county or city superintendents.

Every county and city superintendent, every principal and every helping teacher should make it his business to see that the schools are well organized and that every effort is put forth to make this drive a great success.

The teachers and children responded splendidly and eagerly to this call for war service, as they had to all calls for service during the war.

As a result of this campaign the money raised for this enterprise was reported from the various counties of the state, including the cities within these counties, as follows:

Atlantic County	\$13,202 72
Bergen County	36,888 42
Burlington County	12,262 71
Camden County	18,524 16
Cape May County	2,608 60
Cumberland County	5,025 67
Essex County	58,230 94
Hudson County	73,491 18
Hunterdon County	2,450 22
Gloucester County	5,744 18
Mercer County	31,421 59
Middlesex County	9,111 41
Monmouth County	11,450 00
Morris County	14,833 83
Ocean County	2,874 88
Passaic County	29,340 98
Salem County	3,412 49
Somerset County	5,690 99
Sussex County	2,222 07
Union County	21,422 29
Warren County	4,900 67
Total	\$365,110 00

EFFECTS OF THE WAR

Now that the war is over, it is appropriate to make a brief summary of its effects upon the schools.

1. There has been a great diminution of school building activities throughout the state.

An examination of the county superintendents' reports shows that there was expended for the purchase of land and the erection of buildings between five and six million dollars in each of the years 1915, 1916, 1917 and 1918. But in the school year July 1, 1918, to June 30, 1919, the expenditures for these purposes were \$2,772,218.06, which was a decrease of \$2,667,830.33 from the preceding year.

The high cost of building and the action of the Federal Reserve Board in discouraging the erection of buildings were responsible for this decrease.

This is unfortunate from the point of view of the schools, because in a rapidly growing state like New Jersey the constant erection of school buildings is necessary.

As a result of the lessening of building activities a large number of classes will be placed on half time during the year 1919-20.

2. The war conditions caused increased expenses for schools, in the salaries of teachers and janitors and in the cost of fuel and other necessary supplies, to say nothing of added cost of building.

3. The war affected high school enrollment, particularly in the case of boys. The high school enrollment or registration increased only 331 during the past year. In fact, during the years 1916-17, 1917-18 and 1918-19 the high school enrollment remained practically stationary—a little more than 50,000 pupils.

From 1914-15 to 1915-16—before the war affected us seriously—the high school enrollment increased approximately 6000 pupils. During the period from 1911-12 to 1915-16 it increased from 28,479 to more than 50,000 pupils.

Mr. Meredith points out in his report the decrease in the number of boys enrolled in the high schools in certain counties as follows:

Bergen County	94
Cumberland County	43
Essex County	330
Middlesex County	76

The high school enrollment for the year 1919-20 will probably be greatly increased over the previous years.

4. The war was also responsible for a smaller evening school attendance. The enrollment in our evening schools showed a decrease during the year of upwards of 8000 pupils. Of this number, 4766 were boys and 3262 were girls.

This decrease was due probably to an increase in the opportunities for employment for young people, and to the high wages which

were paid them, which had the effect of lessening in their estimation the need of attendance at evening schools.

5. Another effect of the war was the decrease in the number of men teachers in the schools of the state. During the year the number of men teachers in the state decreased 181 and the number of women teachers increased 445.

This condition is unfortunate because we need more men teachers in the schools.

On the other hand, many of the war activities in the schools, while taxing the resources of teachers and children, were beneficial.

6. The children in practically all the grammar and high schools, in our manual training shops, in our sewing rooms and in our cooking classes devoted many of their activities to war work.

In the manual training shops and in the sewing and cooking classes a healthful motive was found in the construction of things which were used in carrying on the purposes of the war and in affording relief to the destitute children in the countries of our allies. A healthful motive was also found in the "Earn and Give Campaign" of the Victory Boys and Girls and in the making of war cabinets for local histories of the war.

The interest in all these activities was greatly increased among the children and teachers because there were certain definite things to be done which were patriotic and humanitarian.

7. Many of our pupils in the various school systems of the state found in the making of garments in Red Cross work for destitute Belgian and Serbian children and in the aid of French children a motive for service which was invaluable training for these pupils.

8. Instruction in civics or citizenship received a new impetus as a result of our participation in the war. The Legislature enacted at its last session a law requiring instruction in Civics and in Problems in Democracy in grammar and high schools. This law is referred to elsewhere in this report.

9. The revelations of the deplorable physical condition of our youth of military age brought out the fact that more attention should be given to health and physical training in the schools.

The operation of our physical training law, which was begun in 1917, has been fortunate for the schools. It came at a time when public attention was drawn as never before to the importance of physical training and health in the schools.

Approximately one-tenth of the time of New Jersey school children is by statute devoted to this training.

10. The war also revealed the need of conservation, thrift and the wise spending of money.

The influence of the war as set forth in the first five of the foregoing has been detrimental on the whole to the schools; the influence of the other five has left a permanent impress for good which teachers will not forget or ignore in the subsequent activities of the schools.

Motivation for school work is needed.

Service to others has been emphasized and will not be forgotten.

Teachers as well as pupils found a new seriousness in their work because of this service.

The civics instruction, the health instruction and the thrift instruction have left a permanent impress upon the activities of the schools which in the long run will work for the improvement of the schools and the children of the state.

EXTRACTS FROM ANNUAL REPORTS OF COUNTY AND CITY SUPERINTENDENTS

COUNTIES

Superintendent Henry M. Cressman, Atlantic County—The Health Crusade conducted by the co-operation of the schools and the National Tuberculosis Association, under the leadership of Mrs. E. G. Shreve, was participated in by all the schools. According to the report of the Association more schools participated in this in Atlantic County than in all of the other South Jersey counties. The helping teacher, Miss Schaible, writes: "It seems to me that nothing in our school work this year has been more worth while, or has yielded more definite results than the efforts spent in the teaching of good health habits. I have in mind one boy whom I did not recognize after he began to clean up; and I can think of many more whose appearance was wonderfully changed." We hope it will be continued in succeeding years.

Superintendent B. C. Wooster, Bergen County—The total enrollment was 45,664 pupils, an increase over preceding year of 1270. This, for some reason, was far short of our usual increase, which has for many years been more than 2,000 annually. There were fewer children in one-room schools, about the same in two-room schools, and grades I to IV. The increased enrollment is found in kindergarten, grades V to VIII, and in high school, the biggest of all being in the upper elementary grades. This would seem to indicate that the schools are holding pupils better and longer than has sometimes been the case. I mention this particularly because the temptation to leave school has never been greater than during the past year. Boys and girls were able to earn adults' wages and found ready employment. I am credibly informed that a 14 year old boy, living near Camp Merritt, has earned over a thousand dollars within a year, delivering papers, running errands, etc. . . .

The Victory Boys and Girls leaders gave the schools and the school children recognition as an integral fighting body, with its own existing organization and with chance to use its own initiative. We showed what we could do and have won a place in the public eye not heretofore held. . . .

We are pleased that every school child in the county received the Camp Merritt medal of appreciation for efforts of the children on behalf of the soldiers quartered in the county.

Superintendent Louis J. Kaser, Burlington County—In the past year, there were fourteen auto busses owned by the boards of education. During the summer I was informed that six additional auto busses had been purchased. . . .

During "Visit-the-Schools Week" in Miss LeConey's territory an evening meeting was held at the new Cambridge School. Many of the people of that section are Polish, and in order to reach these people the teachers and helping teacher decided to include in the program a short talk in the Polish language. The board of education became interested; the leaders in the community became aroused; the children were delighted and did their part in advertising the meeting. A demonstration in physical training was given and patriotic songs were sung. The Polish speaker was obtained through the efforts of Mrs. Frantz, chairman of the county organization of parent-teacher associations. He was a young man and his talk was a comparison of the schools in Poland with those in America. He tried to explain American aims and education, their interest in health problems and the desire to have their co-operation. There were more than 100 adults present, 75 per cent. of whom were foreigners. The meeting was a success from every standpoint. . . .

School moneys were withheld from Southampton Township on March 3, 1919, because the proper facilities were not being furnished the children.

The township has voted a new school building at Vincentown for \$35,000. They have purchased one automobile truck. The architect is working on the plans. I think a contract will be let for the building in the early fall. As soon as that is done, I shall recommend the releasing of the school moneys. . . .

Eighty teachers, or 20 per cent. of all the teachers in the county, attended summer school in New Jersey. In addition, 21 teachers attended summer school outside of New Jersey, making about 25 per cent. of the teachers in the county who attended summer school. . . .

For the year ending June 30, 1916, there were twelve districts in Burlington County with a school term of nine months in length. I have constantly preached a longer school term until I am very glad to report that all the districts excepting Washington, Shamong, Tabernacle and Woodland Townships are now ten month terms. These will probably remain nine months owing to the cranberry season. If schools were opened earlier the children would not be in attendance because the whole family often moves to some other section of the county during that season of the year. . . .

A traveling dental clinic has been established in Burlington County. Dr. C. J. Hollister is in charge of it. The funds are being contributed by Burlington County people who are interested in the clinic with the hope of having the boards support it after the first year.

Superintendent Charles S. Albertson, Camden County—Our "needs" are: more grade teachers, higher teachers' salaries, several new buildings, better medical inspection with nurses, a more effective attendance law, better supervision in some districts. . . .

One of the most potent influences in securing "better teaching" in Camden County is the Collingswood Summer School. This school has developed groups of "real" teachers with a fine professional spirit and a keen appreciation of their teaching power and of the possibilities of their calling. In many cases the change of attitude has been complete and surprising. We feel that we are very fortunate in having this school in our midst and that so many of our teachers have responded to its influence. The personal culture, earnestness, courage, energy and teaching power of the members of the faculty are remarkably effective on the personalities of the young people who come under their influence. These facts are frequently commented upon at meetings of our supervising principals and our helping teacher. During my visits to schools I frequently hear "Collingswood" given the credit for a successful school achievement or to justify a procedure.

Superintendent Aaron W. Hand, Cape May County—One of the most interesting experiences of my school career was a demonstration to the board of chosen freeholders of the county of the value to the county and the quality of the work of the county vocational school in agriculture and household arts.

The board made an attempt to reduce our appropriations as fixed by the county board of estimate, and though they had no legal right to attempt such a thing, I determined that they should be shown that the school was doing its work faithfully, was benefitting the county and helping the farmer and the rural sections immeasurably.

Our effort was entirely successful. A dozen of our farmer students, all adults, attended the meeting and gave eloquent testimony in favor of the school by reciting the great help it had been to them. The appropriation was immediately restored and paid a few days afterward. We convinced a group of hard-headed men, not anxious to be convinced, and the school emerged much stronger and more popular than ever.

I thoroughly believe that the effective way to improve conditions in the rural sections is through the mediumship of vocational schools conducted just as ours is, and that the agricultural and home economics activities of our state school system should be through the mediumship of the schools, including the vocational schools.

Great difficulties are bound to arise if pupils, teachers and school officers are called upon to serve or to assist other departments or organizations in carrying out a program which is bound to seriously conflict with the school organization and duties. The school system is best able to conduct its own agricultural and home economics activities because they become ingrained as the regular work of the schools and topics of discussion at all our numerous meetings of supervisors, teachers, pupils and people at large. Our vocational teachers supply the trained skill and scientific knowledge and are called upon to attend teachers' meetings whenever necessary for this purpose. The county vocational school idea should be vigorously promoted throughout the state as the best agency available for the improvement of our rural conditions and

interesting the farming population of all ages in agriculture, so that the hegira from the rural sections to the cities may be at least partially halted.

Superintendent J. J. Unger, Cumberland County—During the year I visited 178 teachers twice, 11 teachers three times, and a few four times. Sixteen teachers, most of whom were in service for a short time only, I visited only once. My visits varied in length from one half hour to two hours.

The vital question is, what can a county superintendent do in so short a visit that will help the teacher to do better teaching?

In the first place, he must gain the confidence of the teacher. If the teacher is a beginner especially, it is his duty to put her at her ease in the first few moments of his visit. A smiling countenance, a cordial greeting, a sympathetic attitude, showing his interest in work displayed and in the pupils at their seats, generally will not fail to dispel the self-consciousness of the beginning teacher.

Gradually opportunity offers for the superintendent to talk to the class about their lesson, and in a tactful way he may strengthen the pupils' confidence in their teacher.

Suggestions to the teacher should not be given in the presence of the pupils, even though they be given in an undertone. It is far better to give these at recess or after school when the pupils are not present. If neither of these plans is feasible, then a few suggestions in writing may be left in the register when the superintendent signs it.

Criticism should be helpful, constructive criticism. Care should be taken to criticise favorably rather than adversely. The superintendent may strengthen the confidence of the teacher in him by saying perhaps, "I like the way in which you taught your reading class; however, I would suggest," etc. But the supervision then is furthered still, if a conference with the helping teacher concerning the work of the individual teacher follows. The policy of the helping teacher in assisting the individual teacher must not run counter to the policy of the superintendent. They must work harmoniously and with a unity of effort for the improvement of the teachers supervised. No supervision is worthy of the name that does not leave the teacher visited a better and a happier teacher than she was before the visit of the county superintendent. . . .

An interesting comparison of the comparative cost of wagon transportation and automobile transportation was made. This showed that for the entire county the average cost per pupil transported by wagon was \$40.06, while the average cost per pupil by automobile was only \$39.78. This study was reported in the newspapers with the result that for the coming year there will be more automobile transportation than ever before. . . .

One of the most successful meetings I attended was the meeting of the Maurice River board. It was the annual inspection of school buildings, not by a committee of two or three, but by the majority of the members. All of the schools were visited, and the county superintendent was able to point out effectively the needs of the schools by way of repairs, new furniture, blackboards and other equipment. Dinner was served at the home of one of the members, after which the board met in regular session and passed upon the improvements suggested by the county superintendent. Additional slate blackboard space was provided, new furniture ordered for two rooms,

a new floor and metal ceiling placed in one of the buildings, globes and other equipment provided to the limit of the financial condition of the treasury. The annual inspection day idea is a splendid one and should be carried out by every board of education.

The subjects of music and drawing, though highly important in a scheme of education, received little attention previous to last year in most of the rural districts. Exclusive of Landis only one township, Stow Creek, had a teacher of music. Early in the year arrangements were made with the boards of education of Hopewell, Lawrence, Downe and Commercial to have drawing and music taught in their high schools, so as better to fit their graduates for entrance into the state normal schools. The county superintendent was given authority to employ a teacher of music and drawing at a salary of \$1,000 a year. She divided her time among the high schools of these districts and the districts paid her salary in proportion to the time received from the teacher.

It was found out, however, that the work in the high schools was of necessity so elementary in character that before the close of the school year it was decided to extend the instruction into the elementary grades. Accordingly two teachers were engaged by these same districts to teach these subjects in the high schools and to supervise them in the grades. This program will go into effect this coming year. One of these supervisors of music and drawing will serve Hopewell and Lawrence and the other will serve Downe and Commercial townships.

Superintendent Oliver J. Morelock, Essex County—Before passing to the next topic it might be well to state that my experience as county superintendent and as member and secretary of the county vocational school board during the whole period of the founding of the county vocational school from its inception, has thoroughly convinced me of the wisdom of the law making a county vocational school possible, and also of the decision to establish such a school in Essex County. Although this is one of the leading industrial communities of the county and contains at least three large school systems that have been widely heralded as being highly progressive systems, only two municipalities in the county have done anything along the line of providing vocational schools, and most of the superintendents and supervising principals have been either apathetic or have actually stood in the way of the pupils who desired to go to the county vocational school. In other words, industrial education's only chance for free development is away from the chilling atmosphere of the academically minded school superintendents and principals. To show my own faith in the future importance of this new type of education, I might add that not only do I have greater confidence than ever in vocational education, but I believe that the time will come when at least 30 per cent. of the public secondary schools will be industrial or agricultural in character, and the proportion may well be much larger. For to large numbers of our children the vocational school offers opportunities not only for the development of industrial skill but for character development and for the attainment of genuine culture such as the traditional school as now organized, manned and equipped does not, and can not offer.

The interest in better physical education has received a great stimulus

from the work of the camps. Much needs to be done, however, to capitalize this impetus permanently. The combination of seven smaller districts of Essex County for the employment of a man physical training supervisor is a promising step in the direction of putting physical education on a sound and effective basis. A young man, trained in a college and in a good physical training school, with a year's experience in the Newark system, a year's experience as supervisor of physical training in the city of Irvington, and some army experience, has been employed to have charge of the physical training work in the schools of those districts, at an initial salary of \$2,000. As he has to pay his own traveling expenses we expect to increase his pay next year, and as he proves the value of his work, to keep on increasing the salary of this position up to a maximum of \$3,000.

Superintendent Daniel T. Steelman, Gloucester County—A booklet outlining a plan for the organization and conduct of health and civic clubs in the county was issued from this office. The plan had the endorsement of the supervising principals and leading teachers of the county. Clubs have been organized in about every school in the county. The sanitary conditions of the schools have been greatly improved and the pupils taught valuable lessons in health and cleanliness. A county banner is awarded each month to the school reporting the highest score.

The schools of the county contributed \$5,813.81 to the United War Work Campaign Fund. The county committee placed the allotment for the schools at \$3,000 and expressed its great satisfaction when nearly twice that amount was contributed.

The amount contributed by the schools to the Soldiers' and Sailors' Memorial Fund is \$1,096.99.

The schools were well organized into Junior Red Cross Societies and the work of the year outlined by months. \$1,800 was collected in membership fees of 25 cents each. Much creditable work was done by the pupils.

An essay writing contest on "Why we should own a Liberty Bond" was conducted in the schools, the prizes offered being German helmets to the school having the best essay in each district. Fifty-three helmets were won with the recommendation that they be placed among the war relics collected by the schools.

Superintendent Austin H. Updyke, Hudson County—The Town of Union has appropriated \$300,000 for a new forty-nine room elementary school building with auditorium, gymnasium and swimming pool. Work has been begun on this building.

West New York has appropriated \$225,000 for a new forty-one room building to replace No. 1 School. The buildings are being removed from the land to begin excavation at once for this building. . . .

The Town of Harrison contemplates the building of a seventeen room building, modern in every respect. It is necessary for the board of education to purchase some additional land. The contemplated cost is \$10,000 for land and \$200,000 for building. . . .

Hudson County has completed buildings during the year at a cost of \$1,840,000. Money has been appropriated for buildings which are to be begun at a very early date to the amount of \$2,655,000. . . .

The cost of education per pupil based on average daily attendance is \$85.99 for Hoboken. This is the highest in the county. The lowest is Guttenberg, \$34.83 per pupil. The average for the county is \$70.33. This is an increase of \$13.87 over that for the school year 1917-18, \$20.97 over that for the year 1916-17, and \$25.18 over that for the year 1914-15. . . .

It is manifest that the children of Hudson County do not have equal educational advantages. In some districts the children have all the advantages of modern school accommodations and across the street in other districts only the common branches are taught and the buildings are not modern. . . .

Young women working as trolley car conductors in this section are getting more salary than many of the teachers that teach our children.

Superintendent Jason S. Hoffman, Hunterdon County—As you will observe by reports referred to before, every activity organized in this county during the past three years has been kept alive and growing. We have planned with definiteness and determination, and my very loyal aids never falter or fail to revive at the slightest evidence of neglect or loss of interest—as “Eternal Vigilance is the Price of Liberty” so is it the price of progress. The B. L. C. and health clubs and the rural school council and spring festivals have all been of increased effectiveness during the year. We have also kept a close lookout to prevent the accumulation of dust on the monographs, and rusts from the joints of physical training.

Our biggest administration problem this year has been to arouse public sentiment and center it upon the home school and its life. With this end in view we have held numberless public meetings in every section of the county, organized many parent-teacher associations, the details of which are given in the helping teachers's reports. In our series of get-together meetings very valuable assistance was rendered by the rural education department of Columbia University.

Superintendent Joseph M. Arnold, Mercer County—For the first time, student-teachers were sent to five of our one-room schools for practice teaching. This, it seems to me, is the kind of training these young women who expect to teach country schools need. Too often teachers accept positions in rural schools without any knowledge whatever of the problems of these schools and much time is wasted before they can adjust themselves to conditions. The follow-up work done by the Normal School in visiting teachers has been most helpful to those who are in their first working positions.

Physical training has brought to our teachers better health, more cheerful school life and easier tasks in discipline. For the children it has served to bring straighter and stronger bodies and increased activities and in many ways has made school life more attractive. Our teachers as a whole, have carried on the work with energy and enthusiasm. They appreciate its importance and have endeavored through attendance at summer schools and teachers' meetings to improve the quality of the work. Special stress has been laid on posture—on teaching the children how to sit, how to stand, how to walk, and in many practical ways how to take care of their bodies. At public gatherings in which pupils had a part, at spelling contests, special days in schools and at closing exercises physical training drills were a feature and gave the public an opportunity to see this work. . . .

Standard tests were given in several subjects throughout the year—the Woody, Courtis and Munroe tests in arithmetic, the Ayres tests in spelling, the Munroe tests in silent reading and the Courtis tests in geography. Where any of these tests were repeated after an interval of several months gratifying results were noted. Throughout the county as a whole the results in primary and intermediate grades were much better than in the higher grammar grades. The spelling was based on the Ayres list and the work of the year has shown an improvement in all grades. The Munroe silent reading tests were given in Ewing and Hamilton by the pupils of the Normal School. Unfortunately these were given in Hamilton during the final examinations, which may have had some effect upon the results. . . .

We deeply regret to record the voluntary retirement of Miss Helen D. Grover after a service of thirty-six years as teacher, principal and supervisor in the East Windsor district. Hers is one of the best and noblest types of womanhood, and her teaching by example as well as precept has been fraught with blessings for the community which she served so faithfully. As a reward for her earnest and self-sacrificing toil, which too often seems unrecognized and unrequited, she carries with her a degree of gratitude and praise on the part of a host of pupils, teachers and friends that will ever be to her a ministry of joy.

Superintendent H. Brewster Willis, Middlesex County—Since the removal of the building restrictions the boards of education, during the past six months, have been hustling to provide larger and better school accommodations.

Among the districts which have made appropriations for school buildings are:

City of New Brunswick	\$480,000
City of Perth Amboy	300,000
City of South Amboy	115,000
Borough of Dunellen	82,000
Borough of Middlesex	38,000
Township of Woodbridge	165,000
Township of North Brunswick	8,000
County Vocational Schools	125,000

The townships of Raritan, Sayreville and Plainsboro have planned new school buildings aggregating \$100,000 and other districts are to be heard from. . . .

Our county vocational schools have completed another very successful year. The attendance at both the New Brunswick and the Perth Amboy schools shows an increase over that of the preceding year and the high quality of work turned out by the pupils is very gratifying. In spite of the fact that the majority of pupils attending these schools were employed during the summer of 1918 on some form of war materials production at very high wages, practically every undergraduate resumed his school work at the beginning of the fall term.

A department of industrial chemistry, probably the first of its kind to be organized in the county, has been established at School No. 2, Perth Amboy. In addition to the regular day school course, a part-time trade extension for workers in the chemical manufacturing plants in and about Perth Amboy was organized. This opportunity was taken advantage of by two of the

SCHOOL REPORT.

MIDDLESEX COUNTY SCHOOL WAR ACTIVITIES—1919
September 1, 1918, to June 1, 1919

NAME OF DISTRICT	1 AMOUNT OF THRIFT AND WAR SAVINGS STAMPS PUR- CHASED BY PUPILS	2 AMOUNT OF LIBERTY BONDS PURCHASED BY SCHOOLS	3 AMOUNT OF MONEY CON- TRIBUTED TO THE RED CROSS	4 AMOUNT OF MONEY CON- TRIBUTED TO VICTORY BOYS AND GIRLS WAR WORK	5 AMOUNT OF MONEY CON- TRIBUTED TO STATE MEMORIAL HALL	6 AMOUNT OF MONEY CON- TRIBUTED TO LOCAL MEMORIALS	7 NUMBER OF GARMENTS MADE BY PUPILS FOR WAR PURPOSES
BOROUGHES							
Dunellen	\$1,716.53	\$4,450.00	\$66.73	\$524.32	\$72.00	.....	1,435
Helmetta	910.75	.....	.....	.....	45.49	.....	.....
Highland Park	2,181.79	1,250.00	21.58	188.00	6.58	.....	81
Jamesburg	1,528.63	2,600.00	.....	825.64	35.78	.....	.....
Metuchen	4,440.00	10,000.00	230.00	760.00	147.61	.....	40
Middlesex	3,610.00	250.00	.....	.....	40.60	\$108.50	.....
Milltown	400.00	.....	.....	.....	12.50	.....	.....
Roosevelt	2,093.37	22,450.00	577.25	606.25	673.86	909.01	579
South River .....	.....	4,000.00	.....	734.37	200.00	.....	.....
Spotswood	451.47	700.00	.....	.....	52.00	.....	275
Total	\$17,333.04	\$45,700.00	\$895.56	\$3,638.58	\$1,286.42	\$1,017.51	2,410
TOWNSHIPS							
Cranbury	\$1,101.50	\$1,450.00	\$20.00	\$163.11	\$4.80	.....	.....
East Brunswick	28.00	2,050.00	5.55	75.36	\$3.00	.....	8
Madison	420.58	2,200.00	72.00	.....	9.31	.....	.....
Monroe	769.51	1,250.00	39.45	.....	4.55	.....	.....
North Brunswick	423.50	450.00	16.75	7.50	24.50	.....	.....
Placataway	1,000.00	6,450.00	.....	.....	52.90	\$68.01	933
Raritan	648.47	5,300.00	23.75	178.96	31.02	.....	500
Sayreville	1,307.50	2,450.00	.....	.....	93.30	.....	.....
South Brunswick	2,614.21	4,350.00	57.00	136.92	49.78	.....	.....
Woodbridge	2,121.41	23,900.00	107.00	1,224.62	188.27	.....	.....
Total	\$10,434.63	\$49,850.00	\$391.50	\$1,791.47	\$541.43	\$68.01	1,441
CITIES							
New Brunswick	\$16,453.00	\$93,220.00	.....	\$3,043.00	\$65.00	.....	.....
Perth Amboy	6,908.90	6,500.00	.....	.....	.....	\$60.00	227
South Amboy	4,551.21	3,500.00	.....	638.36	46.00	.....	150
Total	\$27,913.11	\$108,220.00	.....	\$3,681.36	\$111.00	\$60.00	377
SUMMARY							
Boroughs	\$17,333.04	\$45,700.00	\$895.56	\$3,638.58	\$1,286.42	\$1,017.51	2,410
Townships	10,434.63	49,850.00	391.50	1,791.47	541.43	68.01	1,441
Cities	27,913.11	108,220.00	.....	3,681.36	111.00	60.00	377
Total	\$55,680.83	\$203,770.00	\$1,287.06	\$9,111.41	\$1,938.85	\$1,145.52	4,228

largest chemical manufacturing plants in the county and workers from these plants were allowed four hours per week to attend the extension classes. The textbooks used by the students were paid for by the employers and the employees attending the classes suffered no loss of time. . . .

The progress made by the regular day school boys in this department was little short of remarkable and we were unable to supply the demand for trained laboratory assistants.

Superintendent C. J. Strahan, Monmouth County—The supervisory and teaching force of the county is clearly advancing toward a recognized professional body.

The Supervisors' Round Table held monthly meetings throughout the year. A few speakers from outside the county addressed our meetings, but the major part of the time was devoted to discussions of county school work and reports of committees. This organization has become a scientific body for the promotion of education in the county.

A course in scientific measurement was given weekly in the Red Bank high school by Professor Crow, of the State University. About twenty principals and several teachers took the course. The interest in measurements had the natural result of improvement in curricula and methods of teaching. . . .

Committees of our supervisors' organization have with the assistance of teachers and pupils made a vocational survey of the county. Assistant Commissioner Wesley A. O'Leary and his assistant, Mr. McCarthy, have given valuable advice and co-operation. We have not as yet reached a conclusion as to whether county vocational schools should be established. Investigation and discussion in both the School Boards Association and the Supervisors' Round Table will be continued. . . .

County musical contests were held during April and May. This was a new venture to secure more interest among parents and pupils in this social subject. The results amply justified the effort expended.

Following are the divisions:

Choruses:

High school, grammar school, elementary and rural.

Solos:

Male—High school, grammar school, rural.

Female—High school, grammar school, rural.

Orchestras:

Open competition without limitation.

Scoring was made by expert judges upon the following: attack, rhythm, pitch, spirit, quality of tone, and balance of choruses and orchestras. Preliminaries, sub-finals and final contests were held at Matawan, Long Branch, Ocean Grove, Freehold and Asbury Park.

Superintendent J. Howard Hulsart, Morris County.

	1917	1918 .	1919
Pupils enrolled	14,709	15,160	15,351
Pupils in high school	1,692	1,791	1,740
Possible days' attendance	2,176,388	2,372,343	2,194,495

SCHOOL REPORT.

Days' present	1,968,681	2,094,929	1,940,961
Percentage of attendance	90.4	88.3	88.4
Times tardy	11,079	13,558	13,223
Pupils neither absent nor tardy.....	853	519	546
Day school teachers and supervisors	454	467	471
Normal school graduates	243	252	254
College graduates	74	80	81
Average salary of male teachers, exclusive of supervising principals, non-teaching principals and special supervisors	\$945.54	\$1,070.43	\$1,201.66
Same of female teachers	692.44	731.67	827.09

The scarcity of teachers continued during the year. The difficulty of keeping the less desirable rural schools supplied with qualified teachers was constantly experienced. With the unfavorable features of such a condition, however, at least one good result is quite noticeable—a pronounced increase in teachers' salaries.

Superintendent Charles A. Morris, Ocean County—The following division of the enrollment compared with five years ago is significant.

	1914	1919	Per Cent.
Rural schools, one room	1032	765	26 Decrease
Rural schools, two rooms	744	658	12 Decrease
Kindergartens	141	173	20 Increase
Grades I-IV—primary	1397	1424	27 Increase
Grades V-VIII—grammar	983	1236	26 Increase
Grades IX-XII—high school	454	613	35 Increase

Professional training of Ocean County teachers.

	1914	1915	1916	1917	1918	1919	Since 1914
Normal school graduates	48	53	58	66	83	66	38 Per Cent. Inc.
College graduates	22	24	26	28	27	30	36 Per Cent. Inc.
Training limited to high school and summer school	100	99	90	83	65	78	22 Per Cent. Dec.
Total	170	172	174	177	175	174	...

This shows a healthy increase in the number of teachers who are specially trained to teach. . . .

Teachers should be retained more generally than they are. Undoubtedly the chief consideration in this connection is the salary paid the teachers. Salaries have been increased somewhat throughout the county, but they were low in 1914 and have not been advanced even in proportion to the advanced cost of living. The average salary of all teachers, men and women, in 1914 was \$572.97; in 1919, \$739.62, an average increase of 29 per cent. . . .

The running expenses of the schools amounted to \$221,454.90. The chief items of expenditure were:

Salaries of teachers and principals.....	\$128,693.44	58	per cent. of total
Transportation of pupils	29,240.96	13	" " " "
Tuition fees	7,613.35	3	" " " "
Medical inspection	2,215.00	1	" " " "
Administration in the districts.....	4,997.28	2.2	" " " "

While this sum seems large in the aggregate it amounts to \$40.97 a year for each child enrolled, or about 26 cents a day for each child.

Superintendent Edward W. Garrison, Passaic County—The salary question has been a big proposition during the past year. The one thing that is going to make our schools better is money. Money for equipment and money for salaries, such salaries as will raise these teachers above the level of the average wage-earner and place them in a position where they can live and save. In order for them to give a community the best they have their minds must be free from the continual worry of making both ends meet and devoted almost impartially to the development of the children intrusted to their care. The boards of education in this county have done well along this line in comparison to what was being done, but nothing in comparison to what should be done. Again I believe the state should offer some additional assistance. The individual tax bill has increased tremendously during the past few years for this purpose, while the state's quota has practically remained the same. If the time for this assistance is not now, it surely must be in the near future.

Superintendent H. C. Dixon, Salem County—The teacher shortage that was troublesome last fall has not grown less. I thought it would be somewhat relieved about the first of January after the signing of the armistice, but my expectation was not realized. Only one teacher in the county who left teaching to engage in war work returned to teaching before the end of the school year in June. At the present time our schools are opening for a new year. Reports indicate that only four of our former teachers who engaged in war work have returned to teaching here. The teacher shortage amounts at this time to about 8 per cent. of the total corps. Some of these vacancies may yet be filled with qualified teachers, though I do not know that this will be true. I do not now see where we are to get enough teachers to man (or woman) the schools, though we are making use of all we can secure. . . .

If in the smaller communities particularly, where teacher personality counts for so much, we could employ capable teachers who would be content to stay there from year to year we should take a long step toward the solution of the school attendance problem and of other problems as well. But the teachers are a restless body. They seek the larger centers, and they move upon a slight provocation.

The value of school property is reported as being \$592,365, which is an increase of 87 per cent. in five years. The increase represents only new property. The valuations on old property have not been changed.

During the war school building operations were largely suspended but there has been some evidence of revival this summer though not as much as we wish. In May, Upper Pittsgrove Township voted \$25,000 for the purpose determined upon for this year only about 10 per cent. will be left in that type

of erecting a building to consolidate the schools in the upper part of the district. That building is now going up. In July, Piles Grove voted \$16,500 to erect a building for its colored children and thereby complete consolidation in that district. The contract has just been let for the erection of the building.

These decisions of voters are evidence that the tendency toward consolidation continues. Five years ago 30 per cent. of the entire enrollment of the county was in one room schools. With the closing of the schools already of school. The practical disappearance of the one room school seems but a question of time and of a not very long time. . . .

The three supervising principals at Carney's Point, Penn's Grove and Woodstown indicate in their annual reports to me that they are taking the work of supervision seriously in their attempts to improve their teachers and interest their communities in the schools. Teachers' meetings are frequent for the discussion of teaching problems. The school buildings in their districts are used increasingly for public meetings and entertainments. In Penn's Grove the school building is the regular place of meeting of the chamber of commerce and of the woman's club. The latter is fostering a junior civics club and a garden club in connection with the schools.

Superintendent Henry C. Krebs, Somerset County—A series of demonstration lessons was given in four of our large graded schools, to which all teachers in the county were invited. For instance, on a certain day grade IV in one of our schools gave a demonstration lesson in reading at 2 o'clock. The teachers of the county had been notified of time and subject. Usually all the teachers of grade IV in other schools attended. Pupils were dismissed at 3 and the work was discussed by the teachers until 4, the supervising principal or the county superintendent presiding. . . .

The schools did their part in the various war work enterprises. Health clubs were formed in many of the schools. An endeavor was also made to have every pupil in the county a leader in something. There is no better way of developing leadership than by giving every pupil a chance to lead. This idea will be more fully carried out another year.

The progress of the schools in Bernards township during the past few years is worthy of special mention. All the one-room schools in the district have been closed, and all pupils are transported by auto-bus to graded schools. The average salary of female teachers in elementary schools has risen 27 per cent. in three years; in the high school 53 per cent. During the same period the average annual salary of male teachers in the high school has risen 86 per cent. For the coming year no teacher in the elementary grades receives less than \$950. The equipment of the schools, the supervision of special subjects, and the quality of teaching throughout are worthy of high praise. . . .

In conclusion, I recommend for renewed consideration the automatic closing of one-room schools whose enrollment is too small to render good work possible. The children of such schools cannot be wisely trained for a democracy, for the field is too limited. They cannot reap the benefits of organized play. There is no inspiration in a recitation comprising only one or two

pupils. In every respect these children do not have a proper chance at an education. The conservatism of our people causes these schools to remain open often at a per capita of \$100 with little return for the investment, when transportation would be much cheaper and the gain in the education of the children tenfold.

Superintendent Ralph Decker, Sussex County—There are 197 members of boards of education in Sussex County. Of this number 97 voted at the elections. This was 49 per cent of the total number, not a very satisfactory showing.

There are about 6,500 voters registered in Sussex County; to this should be added an equal number of women who had the right of suffrage at this election (only four of whom did exercise the right), making about 13,000 voters in all who had the right of franchise. Of this number 152, or 1.2 per cent, exercised their right.

Of the 152 voting, 108 were members of boards of education or employed by boards as teachers, attendance officers and janitors, leaving only 44 who were not directly interested in the schools in some official or pecuniary way, which is not quite an average of two patrons voting in each district. . . .

A study of the "cost of living" of the teachers of the county reveals the fact that the average cost for board of all teachers in the county last year was \$28.39 per month, to which must be added an average cost of \$2 per month for laundry, making the cost of living over \$30. This was the salary of a beginning teacher 25 years ago. Then the board was \$10 per month. To make our salaries now as good as then our beginning teachers should be getting \$90 per month instead of \$70.

Following our custom for a number of years we have been using our office as a news bureau and each week supply news items to the Sussex Register and New Jersey Herald of Newton, the Sussex Independent and the Wantage Recorder of Sussex, the Stanhope Eagle of Stanhope and the Newark Evening News. Our thanks are due these papers for their most loyal support and generous contribution of space in behalf of the schools. . . .

The automobile dealers were invited to exhibit cars and trucks and the hardware and machinery dealers, farm implements, etc., and to say they responded was putting it mildly. It certainly looked like an old-fashioned county fair. Gasoline engines, milking machines, reapers, mowers, hay rakes, pipeless furnaces, ranges, sewing machines, ensilage cutters, and a dozen makes of automobiles and trucks were on exhibition.

The school building was open to the public, and in each room could be found exhibits of school work of the different departments.

The attendance was large, being estimated between 6,000 and 7,000.

Superintendent A. L. Johnson, Union County—The constant emphasis which has been placed upon the use of the monographs has resulted in a very careful study of this literature by all of the teachers in the county. There is a general belief among supervising officers that teachers have come to realize their value and are using them not so much because they are required to do so, but chiefly on account of the real help they are getting from their use.

Many of the books mentioned in the reference sections have been supplied for the teacher's use in most instances at the request of the teachers themselves. . . .

Much attention has been given during the past year to work in English. There has been a concerted effort to place more emphasis upon oral composition following the suggestions given in the monograph. There has been a decided improvement in language power and it is the feeling among English teachers that these exercises have greatly improved the work in written composition. . . .

In order to measure the value of the teaching being done in the various districts, supervisors have given occasional efficiency tests and have charted the results for each school. By this method it has been possible to locate weak spots and apply corrective measures.

In practically every district in the county much attention has been given to weekly demonstration classes. Teachers are selected from the system who have developed a high degree of skill and are called upon to teach a lesson to a class in the presence of the other teachers. The recitation is followed by a discussion in which the teacher who has given the demonstration lesson participates, answering questions, explaining her aims and method, and defending her lesson plan if occasion demands. . . .

Organizations for the promotion of education in Union County: School Board Association, County Parent-Teacher Association, Principals' Association, Junior Principals' Association, Art Supervisors' Association, Manual Training Teachers' Association, Kindergarten Teachers' Association, Commercial Teachers' Association, Music Supervisors' Association, Physical Training Supervisors' Association, Health Supervisors' Association. These associations include the cities in Union county.

Superintendent Howard E. Shimer, Warren County—As will be observed, 62 per cent of the operating expenses were used for purposes of instruction. Although salaries are still too low to attract many unusually capable men and women to the profession, the report shows a gratifying trend upward. The following comparative table may illustrate my point:

Teachers receiving	1917-18	1918-19
Less than \$500	54	4
Less than 600	115	26
Less than 700	169	100
\$700 or more	72	141

CITIES

Superintendent Amos E. Kraybill, Asbury Park—Last year a small group of student leaders from the high school gave most valuable assistance in physical training. I was very much interested in seeing whether this was merely a passing interest on the part of the pupils because the work was new, or whether it would continue. The work this year done by student leaders was even more successful than last year. The leaders are selected very carefully. They are given honor marks in their physical training work and

are also given the same credit and recognition that goes to players on a successful athletic team. Some of them are planning to take a course in physical training after graduation from our high school and we are willing to consider the work done as student leaders of sufficient importance to satisfy our requirement for experience before employing a teacher in the Asbury Park schools. . . .

One of our teachers in the departmental work of the seventh and eighth grades taught the subject of English grammar by the use of the state monograph alone without the use of any textbook. The results were very satisfactory. She was a teacher, however, who had unusual initiative, energy and ability to create interest in the pupils. I believe there is room for someone to write a textbook on English grammar including within a compass of 100 pages all that is vital in this subject. It should be labeled "technical grammar" in capital letters and be taught as such. The subject of technical grammar has been so carefully concealed in the textbooks of language that few pupils know that there even is such a subject.

Superintendent Charles B. Boyer, Atlantic City—As stated in my report of June, 1918, the pupils of the public schools of this city took an active interest in soliciting subscriptions during the various Liberty Loan drives. They were also vitally interested in the purchasing of Thrift and War Savings Certificate Stamps. From January 1, 1918, to June 20, 1919, the pupils of the public schools of this city invested \$30,866.49 in Thrift and War Savings Stamps.

During the United War Work campaign in November, 1918, the pupils contributed most liberally to the fund designated "Victory Boys' and Victory Girls' Division," United War Work Campaign. An allotment was made for each school of the city as well as for each school of the county. Our pledges far exceeded the allotment for each school. An allotment of \$4,575 was made for Atlantic City school children. At the end of the campaign the pupils had pledged \$7,517.11, of which amount \$6,946.54 was paid by June 20, 1919, leaving unpaid pledges amounting to \$570.57. . . .

Group I. There are 37 male teachers in the employ of the board of education. These are either high school teachers, manual training teachers, vocational teachers, and principals of elementary schools and high school. The average salary of this class is \$2,140.54.

Group II. There are 53 women in this group. They consist of women teachers in the high school, supervisors, special teachers, as well as women principals of the elementary schools. The average salary of this group is \$1,559.43.

Group III. There are in this group 214 teachers, consisting of women teachers of the elementary schools, women teachers of manual training and vocational departments, as well as those of the special defective classes. The average salary of this group is \$1,099.53.

An effort will be made to increase salaries for all teachers for the school year 1920-21. A new salary schedule will be adopted and increases over and above a certain maximum will depend upon the efficiency, experience and actual worth of the teacher to the school system. . . .

The lunch room of our high school is related closely to the vocational

school, in fact, is under the supervision of said school. Five or six girls report from day to day in the lunch room and assist in preparing and serving luncheon to high school students. The lunch room has been self-supporting and a most valuable adjunct to our high school work. Not only the pupils of the high school, but also a large number of city teachers and high school teachers have been served luncheon daily. . . .

In the fall of 1918 the board of education authorized the superintendent to negotiate with Rutgers College for a course in educational measurements to be given to principals, supervisors, and teachers of the city schools. Proper arrangements were made with said institution, and meetings were held in this city every Monday afternoon during the school year. Measurements were undertaken in the following subjects: arithmetic, spelling, language, and penmanship. Tests were given in these subjects and papers marked by teachers. All papers were evaluated, careful records made, and charts and graphic illustrations of the results of each test were prepared for each building and classroom. The work proved valuable to our principals and teachers and more valuable to the work of the school. . . .

In order that the work of our special classes might be more effective and better organized, we shall centralize the pupils into one building. To do so, it is necessary to pay transportation and to make some different arrangement of school hours. We have therefore planned to pay transportation to children living remote from the central school building, and to so arrange our school hours that pupils will have a short intermission at noon, thus enabling us to dismiss for the afternoon session at about 2.30 P. M. In making the centralization of our work, we have so arranged the different groups of teachers that one teacher will have charge of the woodwork for boys, another of the hand work for boys, another cooking, sewing and hand work for girls, as well as two others to do the academic work. We are placing five teachers in charge of the classes, and hope to get much better results and better organization than heretofore. Centralization seems to meet our conditions best.

Superintendent P. H. Smith, Bayonne—All the products of the high school department were turned into the school lunch counter and the accounts were kept with the lunch accounts. The lunch counter did a business of over \$7,000. This covered all the expenses of the domestic science department, paid for all equipment and supplies, and the wages of the women and girls who assisted at the lunch counter. . . .

The high school classes have devoted the year largely to sewing for the Bayonne chapter of the Red Cross. From September 31, 1918, to June 1, 1919, the pupils of grade 9B completed 319 hospital garments and 466 refugee garments for women and children. In addition to this the class made 47 suits for the open-window classes at Roosevelt School. The class also made articles of underwear and dresses for themselves amounting to 272 pieces. . . .

The chief features of the music department have been the reorganization of the course of study, the extension of the work in musical appreciation and the organizing of seven orchestras in the elementary schools, which met weekly. The influence of this work on the individual and the life of the school as a whole fully warrants the expense of special teachers for this work. . . .

The year was opened with a four days institute conducted by the supervisor. All physical training instructors were present. The work prescribed by the state syllabus and other phases of physical training were discussed.

Two new gymnasiums were opened for use during the year in Washington and Roosevelt schools. The work in this department is of a high standard of excellence. It has received praise from many visitors. . . .

One of the most important undertakings of the year has been the work of Americanization. The appointment of Mr. Berman as principal and his assignment to take charge of this work on February 1, 1919, was with a full realization of the magnitude of the work. By his labor and enthusiasm, Mr. Berman has demonstrated his fitness for the task.

Evening school. The entire evening school program was along Americanization lines. Classes were conducted in Lincoln and Roosevelt Schools for foreigners. More than 800 men between the ages of 21 and 62 received instruction in these schools. The epidemic and labor conditions reduced the attendance somewhat from that of former years.

Course of study. The course of study is outlined for two years and is intended to teach the applicant how to speak, write and read English, give him a sufficient knowledge of civics and history and such an appreciation of our ideals as will make him a good citizen. The student is invited to declare his intention to become a citizen when he enrolls in the school.

Upon completing the course the student is presented with a certificate of graduation issued by the Bureau of Naturalization Courts as evidence of fitness for admission to citizenship. Certificates for the completion of one year of the course were granted to about 150 members of the Roosevelt School on the evening of June 28. At the same time the Judge of the Court of Common Pleas presented final citizenship papers to nine men. In addition to this, first papers have been secured for about 500.

Information Bureau. An information bureau is maintained in each center. The people in charge speak Polish, Italian, Slavish, Spanish, German and Yiddish. Our foreign born residents are invited to bring all their troubles here. If the bureau cannot handle the particular type of difficulty, it refers the applicant to the proper authority. Many have been helped by these "information bureaus" and much exploitation of the foreigner has been prevented. The Y. W. C. A. has been of great assistance in this work. . . .

It was found impossible to get many of the foreign born women into classes, either in day or evening school, because of their home duties. As an experiment three teachers were assigned as home teachers. They devoted the entire day to instructing in the homes, either individuals or small groups. This work was carried on with the cooperation of the Y. W. C. A. The teachers and workers visited the homes and organized small groups of women in each tenement house and instructed them in English, first aid and sanitation. The plan requires a large number of workers to get quantitative results but I believe it is the only way to reach this particular class. It enables us to establish a point of contact with them and breaks the spirit of aloofness that stands in the way of effective work.

Day teachers were also provided for night workers. The class organized for bakers was particularly well patronized.

On the whole a successful beginning has been made. The racial groups have been aroused. The Chamber of Commerce has appointed a committee to cooperate with other agencies. The Mayor appointed a committee representing the industrial and educational forces to formulate a plan for the city. All this will be productive of good.

Program for next year. The program includes:

1. A teachers' institute for the training of teachers in the best methods of teaching English to adult foreigners.
2. A survey of the city.
3. A two weeks city-wide campaign to get every non-English speaking person into some class.
4. A comprehensive lecture course for foreign born and native born.
5. A campaign to improve housing conditions and the home life of the people in the crowded sections. To this end we shall need social workers.
6. The use of the schoolhouses for the meeting of clubs and as community centers. The development of community councils.
7. The cooperation of all Americanization agencies to prevent duplication of work.

Superintendent George Morris, Bloomfield—Near the end of the evening school year the students were asked to give a written answer to the question, "Why do you go to evening school?" Many excellent answers were received and some of them were read at the closing exercises of the school. Because they tell in an interesting way some of the results the evening school is accomplishing a few of them are quoted from our local paper with the comments of the reporter:

In telling why she attended the evening school, one young woman said in her essay that she came to this country from Sweden in 1902, landing in Boston. She had heard that there was a better chance to earn a living in this country and that the people here lived more comfortably, and she came here to earn a better living and enjoy more liberty. "But to enjoy the liberty and the better living I realized I must learn the English language in order to read books, understand sermons and lectures, and be able to talk to people in good English. I went to the evening school here, and I appreciate very much the opportunity it gave me to learn the English language, and am thankful to the country that provided the evening school and to the principal and the teachers whose help has made it possible for me to learn the English language."

Another young man said in his essay that he came to this country from Sweden in October, 1916. He liked the country very well. He is now working as a tool-maker. He realized that it would be of good advantage to him to be able to read blue-prints and to do so the acquirement of the English language was necessary. He attended the evening school and he is going to take up mechanical drawing at the next evening school term. "I can now read and study books in the English language. I have had a great deal of good from the evening school, and as we can never learn too much I shall be glad to attend the school next term."

Superintendent E. C. Broome, East Orange—For the second, third and fourth Liberty Loans, the pupils of East Orange subscribed \$244,800. They

Poultry Exhibit at School Fair

Fruit and Vegetable Exhibit at School Fair

Indian Club Drill—High School Girls

Husking Bee on School Corn Plot

BLOOMFIELD ACTIVITIES

purchased \$97,853.87 worth of thrift stamps from January to June, 1919. They subscribed \$6,686.72 to the United War Work Campaign. During the past school year 1,740 articles were made by the pupils in domestic art classes for the use of the Red Cross. In the competition for the State Department, open to all high schools for a plan of a cabinet to exhibit war work, the plan submitted by the students of the East Orange high school was the one accepted. The students in the high school manual training courses made 40 bedside tables for the use of hospitals. Six hundred and sixty pupils enrolled in the School Garden Army and cultivated gardens during the last summer. The East Orange high school had the largest number of boys on farms during the past summer of any high school in the State. Were we to include the war work of the year 1917-18, we should have to add the following: 100 per cent membership in the Junior Red Cross; 3,000 more garments and 8,000 small articles made for the Red Cross by pupils of the schools; and, in addition to the teachers and janitors who entered the service of the country, we should have to add 40 high school boys and one girl. We believe that East Orange, with an average attendance of about 8,000 pupils, has a right to be proud of this showing.

During the past year we rearranged our plan of principal committees along somewhat the following lines. Of the nine principals, each one is chairman of a special committee on the course of study and there are associated with him two other principals. The chairmen hold the same position for three years, but the associates are changed every year. Each committee has definite supervision of a portion of the course of study; for instance, history, geography, grammar grade arithmetic. The duty of the committee is: (1) To see that the course of study is kept up to date in every particular, and that it fits the changing needs of the schools; (2) To be familiar with the latest and best textbooks on the market, and to recommend adoptions of new books; (3) To call conferences of teachers for the discussion of problems in teaching.

Superintendent Frederick E. Emmons, Elizabeth—During the year just past a group of principals and teachers have had a course in educational measurement under the direction of Professor Crow, of Rutgers College. The results of the course have constituted a partial survey of the educational conditions in our public schools, and the results will be tabulated and type-written for public information. . . .

A rather interesting lesson can be seen in the following study of high school elimination.

	Left High School		
	1916-17	1917-18	1918-19
First year students	120	144	115
Second year students	28	62	39
Third year students	36	50	19
Fourth year students	7	12	19
Total	191	268	192

It is evident that there has been a marked decrease in elimination over last year's record with the number closely approximating the record for 1916.

There has been a decided change for the better in the retention for the first year. This has been largely due to an adjustment of our work to the individual needs of the pupils.

Superintendent Winton J. White, Englewood—The public school system of Englewood suffered the most serious loss in its history on December 16, 1918, when Dr. Elmer C. Sherman, who had been superintendent of schools in this city for the past fourteen years, was taken away by the influenza epidemic. It was to him, more than to any other one, that the success attained by the public school system of Englewood is due. It was under his direction that the city had built its four newest schools, ending with the completion of the Lincoln school, which was used for the first time in September of 1918. As you know, Dr. Sherman was an educator of high rank, and his influence on the school system in this city was so great as to bring the standard of our schools up to that of the best schools of the State. We have suffered a loss in his death that cannot easily be filled, but we are glad to have had the inspiration of his life to help us strive for better things here in this city. . . .

We have continued our experiments with supervised study and the socialized recitation in all schools. While progress has been made, we still feel that it is in the experimental stage. We shall try this year to formulate more definite modes of procedure with respect to both these experiments.

Superintendent W. F. Burns, Gloucester City—When physical training was made a part of the school curriculum a few years ago, considerable opposition was encountered on the part of the patrons and among members of the board of education, who questioned its usefulness and who insisted rather that it took the children away from more important studies. After watching the effects of physical training upon the health and development of the children's bodies for a few years, and observing their more erect carriage and their joy in the outdoor exercise, the board last January elected a teacher of physical training whose whole time is devoted to that subject.

Superintendent A. J. Demarest, Hoboken—The time devoted to the development of the mind is out of proportion to the time devoted to physical training; the lack of proper training for the body is detrimental to the students' health. The State through legislative enactment has remedied this matter and now physical training is allotted its full time and surely will bring about decided results.

A revision of the course of study has been undertaken and when completed we hope that it will meet the needs of the community. It is hoped that method and procedure in the classroom may be more definitely directed to the present progress of the public schools. The monographs of the State Department were used as a basis of revision.

Superintendent R. L. Saunders, Irvington—A course in Spanish was added during the year and met with immediate favor on the part of the student body of the high school, as was shown by the fact that out of about 375 pupils enrolled about 150 signified their desire to take up the study of Spanish. The work in this department has been treated from both the commercial and the literary standpoints. We were especially fortunate in securing as a teacher

a native Spaniard, experienced in teaching, and educated in this country at the State College, Pennsylvania.

Seven of our teachers entered United States army service and were granted leaves of absence by our board of education. All have returned or signified their intention of returning next year, and have been granted substantial increases of salary, the local board of education giving them experience credit for all the time they were in the service, as well as raising their salaries above the regular scheduled amount. . . .

Our evening school for foreigners opened September 30, and closed April 30. The teacher reports that four students completed the regular evening school course and that all the time not given to these four students with the regular work was devoted to the entire class in the Americanization of foreigners; three were students who were entirely ignorant of our language and customs on entering, others had been regular attendants in the foreign class for a year or more and were preparing for the federal examinations at the close of the year given by the government officials.

Miss Elsie Schuff, the instructor, reports as follows:

Excellent work was done by all the students. They came determined to do their best and succeeded. In addition to civics, the work covered oral and written English needed in every-day life; such as reading, writing, spelling, friendly and business letters; the study of homonyms and synonyms so puzzling to the foreigner, and facts in American history past and present every one should be familiar with. The last half hour of every Thursday was spent in singing national and folk songs. . . .

The total enrollment during the year consisted of 37 adults; 16 to 20 of these attended regularly. The superintendent of schools sent a notification to all foreigners of the town who applied for citizenship papers; the truant officer and school nurse distributed printed cards telling about our work, and the undersigned spent many hours in making personal calls upon our foreign friends. I trust that the federal diplomas, given for the first time this year, sample copies of which will be exhibited in factories and other social centers, may necessitate the opening of several classes in different schools in this most important work of Americanization, and that some public spirited citizens will offer their assistance by donating a lantern to help in this work, for which the Federal Bureau of Labor will gladly furnish slides. . . .

Standardized tests formed an important part of our program during the year; we used them to test our pupils in geography, penmanship, language, reading, and spelling.

Much attention was also given to socialized recitation and problem teaching. For next year we have what seems to be a helpful program before us dealing with the training of teachers in service, and taking in the proper assignment of the lesson, supervised study, the socialized recitation, and the training of the teachers in the use of the standardized tests.

Superintendent Henry Snyder, Jersey City—Eight evening schools of elementary grade were maintained during the winter. Besides the ordinary elementary subjects, instruction was offered in cooking and sewing. Special attention was given to the teaching of English and civics, and to patriotic instruction in classes for the foreign born. In these schools 31 nationalities were represented. . . .

There were 1,939 males and 1,010 females enrolled in the evening schools; 110 teachers were employed.

Sixteen elementary summer schools were opened in the summer of 1918. In addition to these there was a summer school of high school grade, in which instruction in English, French, Latin, Spanish, algebra and geometry was given. The summer schools enrolled 8,314 and had an average daily attendance of 6,354. Two hundred and fifty teachers were employed.

The yards and courts of 16 schools and one of the public parks were maintained as summer playgrounds, with 38 instructors and a director. All were well patronized. . . .

Swimming classes, with a male and a female instructor, were maintained in Schools 5, 16, 24, 25 and 32, there being five classes in each school. During the school months the classes were held after school hours. During July about 90 classes were in operation each week. . . .

There are twelve classes for pupils mentally defective. For these the board employs twelve teachers and a supervisor, who directs the work of the classes and examines pupils reported as subnormal.

Three open-air classes have been maintained.

Two classes for deaf pupils, one for the blind, one for over-age or backward pupils, and one for delinquents, have been maintained.

Special attention has been given to children suffering from speech defects, and instruction continued during the whole year.

The work of the community centers has been continued. Weekly dances are conducted in five schools. The work also includes boys' and girls' clubs and Sunday concerts. . . .

In accordance with the practice of many years the school buildings have been frequently used for other than school purposes. These purposes have been political, patriotic, philanthropic and municipal. . . .

During the prevalence of the epidemic of influenza in October and November, 1918, the demand for nurses could not be supplied in the ordinary way. The City Hospital and Christ Hospital were overcrowded with patients, for which it was not possible to secure attending nurses. Mayor Hague appealed to the teachers of the city for their assistance in the emergency. The manner in which they responded to this appeal was remarkable. About 400 volunteered for this service. They were assigned to duty in three shifts, covering the twenty-four hours of the day, and served during the whole period of the epidemic. This service was rendered without compensation. It is needless to say that our community appreciated the devotion and self-sacrifice of the teachers and the very beneficial work which they did.

Superintendent H. Dressel, Kearny—In the middle of the year, finding that foreign-born residents did not respond to appeals to enter our night school, we tried the plan of enlisting the interest of the children in school whose parents were of foreign birth. In several schools we placed proper textbooks in the hands of these pupils and through the teacher instructed them how to teach their parents to read the English language. These children voluntarily pledged themselves to help their parents.

The interest of the pupils and of the parents is marked, and the plan

seems to be succeeding so well that we shall try it in every school in town. The children will aid in trying to bring the parents to the several evening school centers and will help the teachers to interpret to the parents until they are able to understand our plan and to see that we are trying to explain America and her ideals to them. We will try to make clear the beneficent purposes of government and the great advantages of American citizenship. The manufacturing establishments are cooperating loyally and are sending to their employees blank forms of petitions for naturalization, and are urging the men to take out citizenship papers.

Superintendent Christopher Gregory, Long Branch—The difficulty in securing teachers, spoken of in last year's report, was more serious the past year. At no time during the year were all positions filled by regularly appointed teachers. Never less than one position, and generally several were held by substitutes. The average of teaching ability in our corps of teachers was lower than in other years, inevitably so. Vacant positions when they could be filled, had to be filled, not with what we wished to have, but with what we could get. Had the board of education been able to pay higher salaries this last difficulty would not have been so strongly felt. . . .

Perhaps the most important matter connected with the course of study was the attempt to map out a course in citizenship for the grammar and high schools. We have found it exceedingly difficult to do anything real of this kind. Reading patriotic selections, saluting the flag, and study of the Constitution, are never more than a small part of the work to be done, and sometimes of next to no value. Our course we are endeavoring to build around the following aims:

1. (a) To teach the underlying principles of democracy as a form of government and to make clear its various implications. (b) To impart such knowledge of national, State and local governments as is necessary for the intelligent discharge of a citizen's duties.

2. To form and develop those ideals, mental attitudes, habits of thought, etc., which are fundamental to good citizenship.

3. To crystalize the above into some definite form of right doing by the pupils, that shall develop the sense of responsibility for the common welfare.

The second and third are the aims we have found hardest to make practical, yet they are the crux of the matter. The mere teaching of facts is not a great task. These aims are dependent not so much on placing in the teacher's hands a statement of what is to be done, as in directing and helping the teacher to know when and how to do it. To develop in the pupils the habit of thoughtful approach to any question means that the first aim shall be pursued with emphasis on teaching the pupil to think about the topics, not on memorizing so many facts. He is to be trained to discuss a topic, rather than to recite about it. If pupils are to learn to think clearly and intelligently about matters of public welfare, discussion of these topics must be begun in the schools, and here may possibly be developed those first stirrings of independent thinking which shall make the pupil politically and socially self-reliant. Therefore we have advised that the lessons which bear upon these topics, especially in the higher grades, be discussions rather than recitations.

For example, a list of subjects was sent to the teacher of fourth year high school history, the topics being intended as suggestive centers of discussion for the lessons.

Superintendent Frederick James Sickles, Millville—Two standard tests have been used in the Millville schools during the past year. In reading we have taken the Monroe silent reading test because it provides a means whereby the most important phase of reading achievement can be tested—the ability to get thought, rapidly and accurately, from the printed page. In spelling, we have used the Ayres spelling scale. This scale is a series of 1,000 words most commonly used in ordinary writing and conversation. These words have been collected from thousands of papers where common topics have been treated. . . .

In the past we have had no standard by which we might measure results. Each school, each classroom has been a law unto itself. Every teacher was willing and anxious to improve her work but there was no accurate way to compare how her class ranked with others in the same grade.

Real progress comes when we are able to see ourselves as others see us. The standard test furnishes a scientific method of knowing when suitable progress has been made in any grade. Causes of weaknesses are detected through the tests and when these causes are known remedies can be suggested.

It is the business of those who are responsible for the supervision to find the causes of weaknesses and apply adequate remedies. In the two tests that have been given much time has been spent in the analysis of our status. Not only has each school and class been considered but the individual case has had the careful thought of supervisory officers and teacher. Suggestions of the weaknesses which we found are contained on the pages where the tables are recorded. . . .

Millville high school has continued the work of its clubs. This year the various organizations included science, music, dramatics, history and civics, debating, business and literature. Each month the clubs met and rendered a program. From the work of the debating club came preparation for the debate held with the Vineland high school. The team gave a good account of itself. Dramatic Club work culminated in the presentation of Sheridan's "Rivals" at the Levoy Theatre to a very large and appreciative audience. The Science Club has on various occasions given pleasure and instruction to an audience of parents and friends. During the year a musical pageant was presented under the direction of the musical director. Not the least of the club activities was that of the Latin pupils. One evening was given over to a program rendered by students of the Latin department. This program was well rendered and showed that modern methods can be used with what some people call a dead language.

Superintendent Don C. Bliss, Montclair—In common with all other organizations, the public schools of Montclair cooperated heartily with local efforts to support the government in the vigorous prosecution of the war. This resulted in a serious interference with the progress of the schools, but it was accepted willingly in view of the national emergency. Early in the year

the entire school system was organized as a Junior Red Cross, with the 5,000 membership of the schools enrolled. All requests for school participation in war drives were referred to this organization and in this way the details were handled with the minimum of school disturbance.

The response of the pupils to appeals for assistance was all that could be expected. The amount of money actually subscribed was by no means insignificant.

Sale of Thrift and War Savings Stamps.....	\$55,323
Y. M. C. A. War Drive.....	4,454
Victory War Drive.....	8,272
Liberty Bonds purchased by pupils.....	81,955
Liberty Bonds purchased partly as a result of solicitation of pupils	321,475

Some of the by-products which came to the school children as a result of their participation in the purchase of war stamps, bonds, etc., and contributions to war activities, are as follows: (1) Finding opportunities to earn money; (2) Habit of saving money; (3) Habit of self-denial; (4) Appreciation of the interdependence of individuals, groups and nations; (5) Ability to cooperate; (6) Better understanding of citizenship; (7) Better understanding of patriotism. . . .

One of the most significant events of the year was a revision of the salary schedule to meet the increased living costs. The amount varied from approximately 7 per cent in the higher paid positions to 33 per cent for those in the lower ranges. This gave an increase approximately of \$250 to each teacher. Under this schedule the minimum regular salary for elementary teachers is \$1,000, with a maximum of \$1,375. No minimum is fixed in the high school. Department heads, men, now receive \$2,750, as a maximum. . . .

An athletic field for the high school is being urged by interested citizens. A former board member has been especially active in arousing public interest in this question. Through her efforts, over \$15,000 have been pledged by private individuals for the development of a field, now being sought.

The platoon schools reported last year have been continued on the same basis, and are proving most satisfactory. Two all-the-year schools are maintained in districts where the majority of pupils remain at home during the summer. That these are meeting a real need is evidenced by the fact that the summer attendance approximates 90 per cent of the regular membership. According to the plan by which these schools are conducted pupils in attendance for the three summers will gain a full year over those who attend but ten months. No evidence of undue physical strain is seen among the pupils. The regular teachers are required to take a full month of vacation, the positions being filled by others who wish to undertake the work.

Superintendent Ira T. Chapman, New Brunswick—One of the greatest needs in this line is a more definite and detailed plan for teaching civics and citizenship. The school itself in its organization and class procedure should be and can be one of the greatest training fields for good citizenship. Initiative, self-reliance, self-control, consideration for others, ideals of cooperation and service can by the very atmosphere and methods of the school be

made a part of the conscious life of the child. The need of control and direction in home and school and in local government can very well be made clear. The dependence of one person upon another and the great necessity for each to contribute to the common welfare can be put in the foreground in the public schools. These basic ideals of good citizenship, if made a real working part of the organization of the schools themselves, will necessarily be influential in the homes of pupils and elsewhere.

As a part of this plan, pupils should be rated on good citizenship in its positive aspect; behavior or deportment, now a mark common to report cards, should be a factor in this rating. Class, group and school organization from the kindergarten throughout the entire school system can be of such a nature that the pupil becomes a real part of the organization, has responsibilities and is really conscious of success and failure not only of himself but of his group or class and of the entire school. Necessary informational material for the various groups about hygiene and safety, community affairs and government should be made available. Citizenship here, as in adult life, is, however, determined by attitude, service, accomplishment and the like, rather than by the possession of information about how things should be done.

Good citizenship and general social efficiency have, it would seem, been greatly aided by the following:

1. The systematic development of physical training in the public schools—very noticeably in the part that has to do with free play and games made possible by the completion last year of three gymnasiums. The summer playgrounds also contribute their share.

2. The increased attention to child welfare through the careful investigation of attendance and health conditions; also, it might be added, by the beginning of definite welfare work for the babies of the city.

3. The tendency of the times in elementary education, which call for more properly directing pupil activity; for greater participation by pupils in the activities of school and in community life.

This latter tendency is largely responsible for the movement for greater freedom in the schools—less of the military organization and more that springs from the initiative of the pupil. Both the method of procedure and the organization of subject matter have been influenced greatly. Pupils are now more in evidence in regular school work. Recitation and study groups apparently conducted by the students themselves are now more frequently seen. The spirit of the kindergarten is apparent in all the primary grades. Even the kindergarten itself is changing and, instead of the stock material of Froebel, is now demanding the play and activity material that the everyday life of such boys and girls in an American community ordinarily require.

This year in the grades, largely in response to the tendency of the times, much of the material for reading and study has been correlated around centers of interest. In this way considerable subject material has been taught in a practical setting. Reading, geography, history and drawing, it may be, or some other combination of subjects, have been drawn on as they contribute, let us say, to Indian life, coal, Rheims, or the like. This, the so-called project method of the schools, is in reality the ordinary procedure of every-day life. By this plan, the various subjects—reading, geography, etc.—contribute their

part as they do in the world of affairs to the solution of a problem or to the information necessary in arriving at a conclusion. The project organization of material for recitation and study does not in any sense neglect the essentials but rather, in conformity with the purpose of the public schools to prepare for the exigencies of every-day life, it makes use of subject material in the combinations ordinarily prevalent everywhere.

Such an adjustment in the elementary schools requires for best results that the equipment of the school and classroom meet the requirements of the work at hand. Movable chairs with which the rooms of the new additions are furnished offer greater freedom and consequently are better adapted to various group formations. The gymnasiums and halls recently provided also give an advantage. Books and material are being supplied with the project plan in view; definite provision for visual instruction is being made. A stereopticon and slides will soon, we hope, be a part of the equipment of every grade building in New Brunswick.

This method of procedure is being studied by teachers and principals and is meeting with their hearty approval. In every building something of this kind could be found last year. More of this thought stimulating work, I am sure, will be found during the coming year. The outlines in preparation can very well suggest plans.

In order that the public schools—particularly the elementary schools—may properly educate for citizenship, it is very necessary that there be proper interaction between community and school. Certainly the schools, with gymnasiums, shops and assemblies, can become a sort of civic center for their respective communities. Parents' meetings, social meetings, conferences of various kinds can, in considerable measure, be held in school buildings. Pupils of the kindergarten and first six grades should be accommodated in their community or district school. Transfers of pupils such as are common in New Brunswick are not conducive to a school community spirit and consequently should be done away with as soon as building conditions will permit. . . .

With all the effort put forth for Americanization, only a comparatively small proportion of the foreign population of New Brunswick is directly influenced by these evening classes. The day schools are still by far the greatest Americanization agency, for they deal with the developing mind of the young citizen. The intense patriotism and spirit of service manifested by these boys and girls of the public schools, however, must have permeated all homes. It might be said in this connection that more than 55 per cent of the pupils in the public schools have one or both parents foreign born. It might be added too that many of these parents are our most loyal and intelligent citizens. Through the utilization of the day school, then, for bringing together mothers, for parents' meetings and afternoon classes, there may be some increased interest created. . . .

During the year more than half the teaching force of the city has been registered for professional courses in extension work at Rutgers College, Columbia University or New York University. Twenty-five are now in professional schools for the summer term. Credits were given for salary increases on the basis of professional credits to twenty-five teachers; this fall

that number will probably be trebled. There is no more important consideration for the proper adjustment and evaluation of a public school system than that the teachers, principals and others directly connected with instruction keep fully in touch with the developing professional knowledge and newer social movements of the times. In no other way can public education at this critical time move forward as safely as it should.

Superintendent M. F. Husted, North Bergen—In 1916-17 the total enrollment of pupils exclusive of the high school was 4,537, a gain of 173 pupils over the previous year. This enrollment is also a gain of 21.4 per cent over that for 1912 and a gain of 50.6 per cent over that for 1907. The 1918 enrollment is 4,874, a gain of 337 pupils, or 7.4 per cent, over 1917 enrollment. The 1919 enrollment is 4,733, a loss of 141 as compared with 1918.

HIGH SPOT—COMPARATIVE ENROLLMENT OF PUPILS

	1907	1912	1917	1918	1919
Total enrollment, grades I-IV.....	2354	2247	2777	2834	2898
Total enrollment, grades V-VIII.....	657	1490	1760	2040	1835
Total enrollment, high schools.....	10	65	207	219	218
	—	—	—	—	—
Total enrollment	3021	3802	4744	5093	4951
Percentage in grades I-IV.....	78	59.2	58.6	55.7	58.5
Percentage in grades V-VIII-H.S.....	22	40.8	41.4	44.3	41.5

This table shows a remarkable and very satisfactory gain in the efficiency of teaching and management during the first half of the decade and a continuance of the gain in the second half. At the beginning of this decade only 22 per cent of the pupils were enrolled in high school and grammar grades while in the year ending June 30, 1912, there were 40.8 per cent that were so enrolled, and for the year 1917 there were 41.4 per cent above the primary grades. This remarkable decade shows a gain in the total enrollment of pupils of 57 per cent and it also shows a gain in the total enrollment of pupils in grades V-XII of 194.9 per cent, but the gain in the total enrollment of pupils in grades I-IV is only 17.9 per cent. This is a decided and very remarkable growth in the efficiency of North Bergen schools. The year of 1918 shows an increase over 1917 as follows: 57 pupils in grades I-IV, 280 pupils in grades V-VIII, 12 pupils in high school grades. The enrollment for the year 1918 may truly be termed a high spot index of progressively efficient school conditions, since 83.6 per cent of the increase falls in grammar and high school grades, while there is only a small increase of 16.4 per cent in primary grades.

During the year ending June 30, 1919, we increased our enrollment in grades I-IV, 54 pupils, but our V-VIII enrollment fell off 205. This can be directly assigned to the attractive wages paid as a result of war conditions. One boy trained in our defective class was paid \$18 a week. Our high school loss was but one pupil, showing a remarkably good conception of the values of a high school education among our people.

Superintendent James M. Stevens, Ocean City—The local board of education decided to add a school nurse to the corps of teachers. While medical

Sheet Metal Shop

Machine Shop

Woodworking Shop

Soldiers' Training School

STUDENT SOLDIERS IN NEWARK

inspection has been advantageous in a measure, it is believed that far better work can be done by having a regular school nurse as well as the regular medical inspector. As the nurse will have to look after about 600 pupils, she ought to be able to do considerable follow-up work. The most marked improvement that I have noticed since the introduction of regular medical inspection has been the improved condition of the pupils' teeth. A few years ago a large per cent of the pupils had defective teeth, while nothing was being done to correct the defect. While we still find defective teeth, about every case that was reported to parents last year received their attention and the pupils were sent to the dentist.

Superintendent W. Burton Patrick, Orange—For the purpose of arousing the interest of the foreign elements in the school a series of special entertainments was held. These were called "Nationality Nights" and the program was rendered in the native language of the nation represented. . . .

Dental Clinic. In view of the fact that the regular dentist enlisted for service prior to the opening of the schools, this department was on a shorter time period the greater part of the year. While the services rendered during that time were of a very satisfactory nature, the curtailment of time prevented the usual amount of work from being accomplished. The following tabulations—one for the present year and the other for the total length of time during which the clinic has been in operation—depict the benefit which this department has been to the individual pupils. The value to the school system is manifested in more regular attendance and closer application to work by the recipients of this treatment. The donor of this clinic is performing a service that is of inestimable worth to the school children of this city.

I. TOTALS FOR 1918-19

Number of individuals	826
Appointments kept	1771
Fillings (amalgam, cement, gutta-percha).....	1017
Extractions	1429
Cleanings	840
Treatments	400

2. SUMMARY—MAY 15, 1916, TO JUNE, 1919

Individuals	3097
Sittings	8225
Fillings	7387
Extractions	8112
Cleanings	3423
Treatments	2185
Finished and discharged patients.....	2953
Patients who moved away	40
Carried as not finished—	
public schools	69
parochial schools	35

The organization of the classes for subnormal children has been further perfected since segregating all pupils of this type in a building by themselves by utilizing one floor of the building for girls, the other for boys.

There was one class of boys of higher mentality and one of lower mentality. This same division applied to the two classes of girls.

About one-third of the time was devoted to academic work. The time spent in manual work by the advanced class of boys was of a very practical nature and in many instances the training would well equip a boy for earning a livelihood after leaving school. All the floor brushes used in the different schools were made by the boys of this class. Many boys who previously have had similar training in this school now have good positions in brush factories located near here. In addition to the brush making, the boys have caned 225 chairs.

The boys in the second division wove raffia baskets, made small rug-looms and toy furniture.

Each girl in the advanced division was taught how to run a sewing machine, and the work along this line was so proficient that the girls brought from home material, which was made into articles of clothing for themselves and also for smaller brothers and sisters. Much work was done for the Red Cross, including six fine rugs for the soldiers at Camp Merritt.

Each girl in this class received instruction in cooking and several of the girls utilized this knowledge by getting their own lunches at the building under the tuition of the teacher.

The girls of the second class made many articles, such as sweaters, work bags, aprons, etc. . . .

The following tabulation from the attendance officer's report is interesting, inasmuch as it represents the reasons assigned as a result of each call made by him.

Truants	177	Sickness	2685
Illness in family	395	Death in family	82
Helping at home	100	Insufficient clothing and shoes...	336
At home—no reason	377	Moving in city	79
Visiting out of city	194	Working	75
Moved out of city	124	Attending parochial schools.....	70
Nobody home	421	Miscellaneous calls	95

A course in educational measurements was conducted Wednesday afternoons, after the close of the school session, at the high school. This course was under the direction of Professor Crow, of Rutgers College, and was attended by all of the principals, a few of the teachers, and the superintendent. Standard tests, such as the Courtis, Stone reasoning, Ayres, etc., were discussed, and then these were given in arithmetic, spelling, language and writing. A committee was appointed for each subject, the chairman of which was one of the principals. The results were tabulated by the committee and graphs made by the chairman.

Two general teachers' meetings were held, at which the tabulations and graphs were discussed for the purpose of ascertaining the subjects which need more emphasis in teaching. The meetings proved highly beneficial and the principals and teachers who devoted their time to the preparation of this work deserve much credit.

Superintendent Fred S. Shepherd, Passaic—We were able last January to show the immediate need of school nurses and the board authorized the

employment of two, who were given charge of two schools each, or about 2,000 children each. In general the duties assigned to them were: (1) To assist the medical inspectors in their examinations; (2) To follow up all cases requiring such attention; (3) To treat minor ailments in the school and to visit the homes of the children.

Whatever supplies or equipment were needed to this end were given to the nurses. The results have been most gratifying and the children very much benefited. The principals and teachers are greatly pleased with the arrangement and the demand is strong from the other schools to have similar care of children in the other schools. At this writing I am able to say that the plans laid at the close of the year for the reorganization of our medical department have been carried through, and this coming year, instead of five medical inspectors and no nurses, we shall have three medical inspectors with three nurses. One of these medical inspectors is designated as chief medical inspector and contracts to give us three and one-half hours of his time daily for \$1,500 per year. The two assistants are each paid \$500 a year and agree to give two hours a day to the schools as conscientiously as they will keep their own office hours.

The three nurses give eight hours a day, from 8 A. M. to 5 P. M. The out-of-school hours are used for home visitation. It is possible that the nurses will be required also to serve Saturday mornings in this capacity. It is recognized by our board of education that this organization is temporary and a step forward toward a still more complete and effective arrangement. The ultimate aim is to have one additional medical inspector, also a chief medical inspector who will give his entire time to the schools, and at least three additional nurses. We hope to demonstrate this coming year the value of our reorganization as a basis for a larger appropriation to make the department still more efficient.

The nurses are able to make some of the physical examinations formerly made by the medical inspectors. They also make classroom inspections and attend to all cases of pediculosis. For the month of September there were 1788 physical examinations, a record which has never been equaled in the history of our Passaic schools for the first month. At this rate we shall have examined, by the first of May if not the first of April, every child enrolled in our schools and in addition have given much better medical attention than ever has been given before. I am appending a copy of the report on social welfare work being done in one of the schools where the nurse is. We hope eventually to do work of this character in all the schools of the city.

Superintendent John R. Wilson, Paterson—The Paterson schools took a prominent part in many of the war-time activities of the city. In the fourth Liberty Loan \$138,000 was subscribed through the schools and in the Victory Loan the subscriptions obtained by the schools amounted to \$280,700. The sale of Thrift Stamps and War Savings Stamps in the schools amounted to \$39,517. Paper banks have been distributed among the children so that the war savings work may continue during the summer vacation. The children also raised and contributed \$9,278 to the United War Work Drive. There were 1,800 home gardens cultivated by school children during the year. All the schools held membership in the Junior Red Cross, raised funds for the

purchase of material and made many useful articles for the unfortunate children across the sea. In the sewing department 20,073 articles of wearing apparel were made by the children and delivered to the local Red Cross chapter for shipment. An effort was made to establish a close correlation with the regular work of the schools. The war-time activities furnished subject matter for arithmetic and composition and served as a means of interpretation in history, geography and other subjects.

Two trained nurses were added to the department of school hygiene in September, making four who served throughout the school year. It is planned to add two more nurses next year. These women have done much to increase the efficiency of the medical inspection work and they have reduced considerably the number of absences due to the minor afflictions of childhood. Half of the staff will be on duty during the summer vacation in order that the work may be continuous throughout the year.

Superintendent S. E. Shull, Perth Amboy—Influenced by a closer study of the past records of health conditions among pupils, and by a more vivid appreciation of the importance of the health of childhood, the number of nurses employed in the schools was tripled. It may be that conditions during the year were not conducive to a reasonably accurate estimate of their services in the schools. However, the records for the year show a greatly decreased loss of time due to sickness, and almost total elimination of skin diseases incident to poor nourishment and lack of cleanliness, better care of teeth, and a negligible number of cases of contagious diseases to which the young are particularly liable.

The value of the services of a corps of nurses is not besought exclusively in the work they do among the children enrolled in the schools, great and desirable as that is. These women, in this community, are an extremely valuable educational agency in the homes of many of our people. There is no substitute for the intelligent and tactful nurse who visits and instructs the mothers of the children with whom she deals in the school. Primarily, the work of our nurses is, of course, in the schools, but without the enlightenment of mothers of certain types, much of the work of the nurse in the school, so far as the health conditions of the schools as a whole is concerned, would be futile. . . .

The year's work was somewhat modified as a result of the lessons learned from the world-wide upheaval of the past few years. Here we felt that conditions called for placing special stress on English and those selections of literature embodying American ideals and aims; on the importance of better care for and development of the body; on social and civic duties, privileges and rights; on trying to get away from considering school population *en masse*, and on sizing up the individual in an attempt to better fit him to take his proper place as an industrious and self-respecting citizen of the America of tomorrow.

Superintendent William C. Sullivan, Pleasantville—A patriotic spirit pervaded our schools. The pupils were active in collecting money and in making articles for the Red Cross; in selling Liberty Bonds, Thrift and War Savings Stamps; in soliciting membership for the Victory Boys and Girls Cam-

paign; and in getting subscriptions for the Soldiers' and Sailors' Memorial. It is probable that these activities have as great an educational value as the study of books and do much toward fitting boys and girls for citizenship; yet it can not be denied that they consumed a great deal of the time that could have been spent in acquiring other knowledge that would be profitable to our children.

Superintendent W. F. Little, Rahway—The annual exhibition of the work done by our pupils along manual lines was one of the largest ever given in this city. In woodwork there were 70 pieces of furniture made by the pupils that would cost, at wholesale, at least \$2,100. In the domestic arts department the exhibition of cooking and sewing was much larger than any previous showing of this department. The work of drawing and handwork, in the grades, from a pedagogical standpoint, was excellent. The work showed a steady progress from the beginning grade right up through the high school work. It insures a foundation for future development, and will bring our schools second to none, in this line.

A review of the work of the year in these departments would be very interesting. I shall offer a simple summary of what has been done. In the high school, the manual training department made during the year 48 packing cases for the Red Cross, at an estimated cost of \$1.40 per case, the Red Cross furnishing the lumber. During the year about 75 pieces of furniture and many other smaller pieces were made by the pupils. The printing department furnished practically all needed blank forms, etc., for all the schools, and also printed tickets and programs for entertainments, commencement invitations, stationery, and other things needed in the course of the year. The estimated cost of the work done for the different schools, by the director of this work, is \$390. . . .

Last fall, for the first time, a school nurse was employed, and the wisdom of this step has fully been established by the results achieved. During the year there were 753 cases of more or less severity that came under her observation. In addition, she made 209 home calls and there were sent home from school 109 pupils. By the careful attention given to the appearance of anything of a contagious nature it was possible to prevent the spread of the disease, and it may be said that we have had no epidemic of any kind among the pupils except, of course, the national visitation of influenza. The school nurse has been of particular value in the homes of those pupils where disease would be most likely to gain a foothold. By visiting these homes and giving instruction the chance of spreading contagion was greatly minimized. Another point of particular value, in having a school nurse, was the manner in which she was able to follow up cases discovered by the school physician. In the past, our trouble, like that of many other districts, was that we discovered and tabulated shortcomings, but did not always "follow them up."

Superintendent O. O. Barr, South Amboy—The year just closed completes my full fifth year as superintendent here. During that time marked changes and progress have taken place—thanks to a most progressive board of education. The following special departments have been introduced: manual train-

ing, domestic science, including sewing and cooking; drawing and art, music, physical training.

Each one is in charge of a special instructor and supervisor. Extracts from their reports are herewith submitted so you may know what is being done along those lines.

Superintendent H. A. Sprague, Summit—The words excellent, good, fair and poor may have different interpretations as used by different teachers. Public school education has been in great need of definite standards for measuring efficiency, comparable in practical application with those used in every progressive business organization. Several of the leading educators in the United States and Europe have prepared definite measures or "yardsticks" in the field of education. The tests and scales listed below were derived and standardized by use of scientific methods. For example, the Ayres Spelling Scale was derived by dictating 1,000 words to each of the grades from second to eighth in 84 cities. In this way, 1,400,000 spellings were secured from 70,000 children. Words were classified, graded and rated. The 1,000 words used were selected according to frequency of occurrence in common textbooks, newspapers and correspondence.

The following tests and scales were applied in the Summit public schools during the early spring of 1919, and will be repeated in the spring of 1920:

Ayres, Spelling scale; Courtis, Research tests in fundamentals of arithmetic; Stone, Reasoning tests in arithmetic; Thorndike, Reading tests; Thorndike, Penmanship scales; Trabue, Nassau County composition scales; Terman, Revision of Binet-Simon intelligence tests.

The results of both series of tests should be given in the next annual report. While extensive comparisons can be made, yet the results obtained will be used principally to suggest problems for study relative to organization, courses of study and teaching methods.

Luther N. Steele, Town of Union—The health department consists of a school physician, school dentist and two nurses. This department is doing excellent work. We have a very enthusiastic physician who I think will be able to organize his department as a working unit for good and practical use, which will be of great help here in this community. Last year we employed one nurse, Miss Reed having resigned her position in the Town of Union to go over seas as a Red Cross nurse, it became necessary to employ another nurse, Miss Graham. After Miss Reed returned in March she was immediately given her old position by the board of education, thus giving us two nurses during the last two months of last year. We are continuing both these nurses this year and find them very superior and competent in their line, hard working and conscientious, willing to cooperate at any and all times for the greatest good of the children.

Superintendent E. Mackey, Trenton—The special events and days of the year have added interest nevertheless to the school work. Every department and subject has been given motivation. In the high school and upper grammar grades posters advertising the collection of peach pits, the Salvation Army drive, the sale of Liberty Bonds, athletic events and the like have

formed the great bulk of the art work. Students also designed dresses, planned interiors, making art a real interest. We are planning to add to our art courses a more extensive study of design and color for pupils planning to enter normal schools and to add commercial advertising to the commercial course in high school. . . .

In manual training and domestic art and science our aim has been to train in self activity by serving national, community and individual needs. In manual training the boys have made 300 packing boxes for the Red Cross, 2,000 yarn winders, 45 bedside tables, 1,500 Christmas toys, 100 knitting needles, etc. The shops have also done much repairing in the schools as well as to make 22 science tables, 125 flag stands, 115 seed flats, 4 manual training benches, folding screens, bulletin board, tables and trestles for primary rooms and the like. In the print shop over 100 separate printing jobs were completed. Printing forms, tickets and school papers have been a large part of the work. . . .

Under the direction of our garden supervisor, the children have planted and worked 14 school gardens, three of which are demonstration gardens. These tracts are divided into individual and class plots. The products were marketed and enough money was realized to entirely pay the seed bill for the schools and to have approximately \$15 or \$20 per school to invest in garden equipment or school supplies. There are also 1,100 home gardens under the supervision of garden directors. At the Interstate Fair products of the home and school gardens were exhibited and twenty prizes won. The value of the gardens cannot be measured merely by money received. They have been important in placing before the children real problems and in arousing community interest in school activities. . . .

The work of measuring the school children by giving various standard tests has been continued this year by having adoption of tests in reading, language, spelling, arithmetic and geography. Much of the work was directly in the hands of the classroom teachers or principal instead of one person. The interest in the subject of educational measurements can be determined by the fact that over one hundred of our teachers took the extension course in Educational Measurements given by Dr. Thorndike and Dr. McCall, under the auspices of Columbia University.

Superintendent Arthur O. Smith, West Hoboken—I feel that particular mention should be made of several teachers in the faculty of the system who volunteered their services in the county emergency hospital during the prevailing epidemic while the schools were closed. We tried to cover this work systematically with these volunteers, sending them in shifts. People of the town having automobiles conveyed at stated times the teachers to and from the hospital, which was located at Bayonne in the southern part of the county.

For the year just completed I report with no little pleasure that the town of West Hoboken appropriated over \$27,000 more for teachers' salaries than during the preceding year of 1917-18. This was distributed among all the teachers according to their respective merits. While the teachers are not adequately paid yet, still I hope to report a similar progress for the coming year. . . .

In this report I would be unjust if I did not commend the teachers of the

system for their most ardent work in cooperating in all war activities. This in turn has had its wonderful effect on the pupils of the school and has reflected great credit on the teaching profession.

The teachers and pupils have actually contributed or solicited \$4,996.99 for the different charitable war activities during the year. They have canvassed for and obtained subscriptions for Liberty Bonds during the year amounting to \$173,550. In War Savings Stamps they have bought \$28,614.97 during the present school year.

I speak of this work with much pride as it can but reflect credit on the school system in years to come. . . .

At the beginning of the year we instituted a course in mechanical drawing for all boys in the seventh and eighth grades and for those boys who elected it in the first two years in certain prescribed curricula in the high school. This has proved a great success as is shown in the over-time which the students put in at stated periods.

REPORT ON SUMMER SCHOOLS

At the request of the Commissioner, Mr. T. D. Sensor, Director of Summer Schools for Teachers, has prepared the following report concerning the work of the 1918 summer schools:

The summer schools conducted by the State Department of Public Instruction during 1918 met as best they could the changed conditions brought about by the war. It was thought best, because of the decreased attendance at Phillipsburg and Freehold, to concentrate the work at Newton, Collingswood and Ocean City. Rutgers carried on summer school work along the same lines as last year.

The purpose of the present rule concerning teachers' certificates, which requires attendance at a state summer school for at least two years before the limited elementary certificate can be secured, is that no teacher shall enter upon her duties without some professional training. This rule reads: "In addition to graduating from a four-year high school course, on and after September 1, 1918, an applicant for a limited elementary certificate must have successfully completed two six-week sessions of a New Jersey state summer school, or a summer school approved by the State Board of Examiners."

About one hundred high school graduates without experience as teachers were in attendance.

The high wages offered to teachers for employment in war work reduced the summer school attendance. The enrollment was decidedly less for the entire State, but the changed conditions regarding all matters of industry easily explain the reason for this decrease.

The summer schools were made up generally of teachers who were compelled to attend in order to complete certificate requirements. We must, however, note that notwithstanding the temptations of high wages many teachers came to the summer schools seeking to improve their efficiency as teachers.

The schools of observation proved as helpful as in former years. High school graduates were sent into these schools to deal with children in actual

school work, and in this way they became familiar with their future duties as teachers.

Many helping teachers were present at the Ocean City school, and during Schoolmasters' Week conferences of these teachers were held in Round Table sessions. These were conducted by Assistant Commissioner Scott, and were largely attended by county superintendents and supervising principals. The value of the round table work is not easy to estimate.

Physical training was emphasized in all the schools, special teachers being in charge, and at Ocean City an opportunity was given teachers to prepare for supervision. In all the teaching of the summer schools the monographs prepared by the State Department were followed with the idea that there should be an intelligent and practical uniformity established throughout the State.

An interesting feature of the Ocean City school was the presentation of a patriotic pageant entitled "Pageant of Allied Nations." It was presented by the faculty and students of the school and the citizens of Ocean City, in the interest of the local chapter of the Red Cross. The costumes and special scenes were arranged by the art department, the folk dances and special drills by the physical training department, choruses and special music by the music department, advertising and posters under the direction of the industrial drawing department, stage properties by the manual training department, dialogue by the English and history departments. Upwards of \$1,600 was realized and turned over to the local branch of the Red Cross.

Schoolmen's Week was well attended, more superintendents and principals being present than in any previous year of the summer school work. The principal speakers were: National Commissioner of Education P. P. Claxton; Dr. Edward L. Thorndike and Arthur D. Dean, Teachers College, Columbia University; and Dr. Fred M. Hunter, Superintendent of Schools, Oakland, California.

During the two days devoted to the conference of the school boards, under the direction of the State Federation of District Boards of Education, two speakers from the National Security League addressed the convention, and too high a compliment cannot be paid to the addresses given by these men—Mr. Job Hedges, of New York, and Dr. Robert M. McElroy, of Princeton.

The Mothers' Congress, while not as fully attended as in former years, was inspiring and helpful to all the delegates that could find time to be present. Here again, the National Security League sent an able speaker in the person of Dr. Thomas W. Churchill, of New York.

The patriotic work was carried on along Red Cross lines and the sewing department spent most of its energy and time in aiding the local branch to make garments for the Belgian and French refugees.

We feel that, notwithstanding all the difficulties involved in the conducting of the summer schools, the money of the State was well expended in keeping open this opportunity for improvement to those who teach the children of the State. The following is a brief statistical report of the schools for the year 1918:

SCHOOL REPORT.

ENROLLMENT

COUNTIES	OCEAN CITY	COLLINGSWOOD	NEWTON	TOTAL	RUTGERS	GRAND TOTAL 1918	TOTAL 1917
Atlantic	36	3	..	39	3	42	79
Bergen	20	..	2	22	14	36	59
Burlington	32	46	..	78	8	86	121
Camden	23	73	..	96	..	96	180
Cape May	66	2	..	68	2	70	66
Cumberland	51	10	..	61	4	65	114
Essex	17	..	1	18	29	47	50
Gloucester	20	29	..	49	..	49	94
Hudson	11	..	2	13	27	40	54
Hunterdon	19	1	..	20	9	29	40
Mercer	27	1	..	28	12	40	80
Middlesex	10	..	..	10	124	134	176
Monmouth	20	5	..	25	44	69	92
Morris	11	..	14	25	16	41	61
Ocean	13	5	..	18	7	25	32
Passaic	9	2	3	14	14	28	38
Salem	18	16	..	34	5	39	49
Somerset	6	..	..	6	23	29	46
Sussex	7	..	32	39	4	43	78
Union	9	..	..	9	45	54	45
Warren	5	1	15	21	18	39	80
	430	194	69	693	408	1101	1634
Students from out of the State	24	..	1	25	11	36	36
Delegates attending Mothers' Congress.....	100	..	..	100	..	100	..
Children in Observation Schools	120	32	32	184	190	374	370
Total	674	226	102	1002	609	1611	2040

STATE BOARD OF EXAMINERS

So far as the certification of teachers is concerned the year that has just passed has perhaps been the most trying in the history of schools in New Jersey. The conditions which were developed by the world war made it necessary for the Board to grant what has

been known as the "war emergency certificate," and made necessary several other changes in the rules to meet the demand for some practical way in which to keep the schools open.

On November 2, 1918, the Board adopted the following amendments to the rules and regulations concerning teachers' certificates:

Supplement to paragraph (d), rule 31, of Rules and Regulations Concerning Teachers' Certificates, Edition No. 9, pages 11:

"The holder of a special physical training certificate may teach the informational course in first aid if this work has been covered in the course pursued by the applicant in a training school endorsed in accordance with the provisions of rule 19, section 1, of Rules and Regulations Concerning Teachers' Certificates, Edition No. 9.

"The informational work in home nursing and domestic hygiene may be taught by the holder of a special cooking or sewing certificate if this work has been covered in the course pursued by the applicant in a training school endorsed in accordance with the provisions of rule 19, section 1, of Rules and Regulations Concerning Teachers' Certificates, Edition No. 9."

On December 21, 1918, the following resolution was passed:

In order to meet the emergency conditions brought about on account of the war the State Board of Examiners will grant temporary licenses for the employment of teachers of physical training who, in the judgment of the city superintendent or county superintendent, give evidence of being able to fill the position in a satisfactory manner; said temporary licenses to continue in force during the duration of the war, with the understanding that the applicant shall begin to prepare himself to qualify for the regular certificate for the work which he is to do, and that if he is deficient in high school qualifications he shall consult the Bureau of Credentials and take the necessary examinations to complete the high school requirement. In addition to this he shall pass any physical training examination that may be required in accordance with the rules.

On March 28, 1919, the Board adopted the following resolution:

All war emergency certificates heretofore issued shall expire on June 30, 1919. Said certificates may, however, be renewed for one year on the recommendation of the county or city superintendent of the county or city in which the applicant teaches. All such certificates to expire June 30, 1920.

At this meeting the Board also passed a resolution that any teacher who had served in the army would be credited with the time in lieu of teaching experience, if this credit was required to complete any form of certificate he might be seeking.

On June 23, 1919, a rule was adopted that a person who had taken the examination in a subject required for the permanent elementary certificate and failed could be allowed to complete that subject in

one session of a summer school. At the October meeting this rule was repealed.

On June 23 the following resolution was passed:

Resolved: That we recognize any kindergarten school in another State which is approved by the highest authorities in the State in which it is located, provided that a graduate of such school has had a four year high school course preceding admission to the kindergarten training school and must have had a two year training course in such school.

The statistical report follows.

TEACHERS' CERTIFICATES GRANTED DURING 1918-19

STATE CERTIFICATES

	MEN	WOMEN	TOTAL
Second Grade state (renewals) .....	..	4	4
Third Grade State (renewals)	15	50	65
Special State (renewals)	1	5	6
Permanent Supervisors	27	2	29
Limited Supervisors	16	4	20
Limited Secondary			
Incomplete	21	59	80
By examination	23	37	60
By endorsement	34	118	152
By renewal	18	77	95
Permanent Secondary	51	114	165
Limited Elementary			
By examination	5	106	113
By renewal	8	278	286
Permanent Elementary			
By examination	14	248	262
By endorsement	9	176	185
Two year Pennsylvania endorsements .....	..	43	43
Normal Life	1	27	28
Normal Life (granted by Normal Schools).....	7	850	857
Limited Special State			
By examination	73	186	259
By endorsement	32	101	133
By renewal	45	209	254
Permanent Special State	40	170	210
Limited Vocational			
By examination	7	6	13
By endorsement	23	29	52
By renewal	11	4	15
Permanent Vocational	8	5	13
Vocational Supervisors .....	..	..	..

SUMMARY OF STATE CERTIFICATES

Limited	234	691	925
Renewals	98	627	725
Permanent	157	1592	1749
Total	489	2910	3399

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COUNTY CERTIFICATES—RENEWALS

First Grade County	23	96	119
Second Grade County	63	63
Third Grade County .....	..	..	..
Special County	2	21	23
Total	25	180	205

TEMPORARY LICENSES

All kinds	1450
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WAR LICENSES

All kinds	35	384	419
Informational subjects endorsed on 450 certificates			680

GENERAL SUMMARY

State Certificates granted and renewed.....	3399
County Certificates renewed	205
Temporary Licenses granted	1450
War Licenses granted	419
Informational Subjects	680

Total	6153
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Total number of examination papers written in November, 1918.....	2485
Total number of examination papers written in April, 1919.....	2842

Total	5327
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Applicants, November, 1918	919
Applicants, April, 1919	1082

Total	2001
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BUREAU OF ACADEMIC CREDENTIALS

Mr. T. D. Sensor, Chief of the Bureau of Academic Credentials, makes the following report in regard to that Bureau:

During the year ending June 30, 1918, the Bureau of Credentials revised the pamphlet which informs applicants what steps to take in securing high school equivalency. A copy of this is herewith submitted.

CIRCULAR REGARDING QUALIFYING ACADEMIC CERTIFICATES AND THE EXAMINATIONS NECESSARY FOR THE ESTABLISHMENT OF THE LEGAL EQUIVALENT OF HIGH SCHOOL WORK

Beginning February 15, 1917, the requirements for the Four Year High School Qualifying Academic Certificates, which are necessary for entrance to the examinations leading to the different professions, were changed from 60 academic counts to 72 academic counts.

This was done in order that the Qualifying Academic Certificate obtained by examination may more nearly approximate the minimum requirements for a diploma of graduation from an "approved" four year high school, and at the same time be in closer agreement with the requirements of those states with which New Jersey has reciprocity.

All persons who applied for Qualifying Academic Certificates prior to February 15, 1917, are permitted to continue on the previous or 60 count basis; all others however, must be governed by the requirements outlined below for a 72 count certificate or less as may be specifically stated below.

By passing examinations a candidate may supplement one or more successful years of work in an approved school. Eighteen counts are allotted for each year of such work. A candidate who presents evidence of the partial completion of an approved secondary school course will be advised by the Bureau of Credentials in what subjects it will be necessary to pass examinations to complete the requirements for a qualifying certificate, provided that the record of secondary school work already done, and for which credit is asked, is submitted on form D29 properly authenticated.

Qualifying certificates may be obtained in any one of the following ways:

1. On evidence of graduation from a literary college or university (in distinction from a professional college or university) of recognized standing; or

2. On evidence of having completed a full four year course in an approved public high school or registered private school; or

3. On evidence of having (a) passed the entrance examination required to the literary course (or any other course for which the entrance examination is equivalent to that required for a 72 count certificate) of any recognized literary college or university, or of having been admitted to the same without condition (this does not include entrance to professional schools or colleges); or

4. On evidence of holding a New Jersey permanent elementary teacher's certificate issued subsequent to September 1, 1914, which certificate will be accepted in lieu of examinations for a 72 count certificate; or

5. On evidence of passing examinations as indicated below, aggregating 72 counts, at a minimum of 75 per cent, in each of the following subjects; and the specific conditions indicated.

I. For Four-Year High School Qualifying Certificate.

a. Required subjects; 43 counts:

English, three years, 10 counts; English, fourth year, 3 counts; Elementary Algebra to quadratics, 5 counts; Plane Geometry, five books, 5 counts; two of the three sciences, Physics, Chemistry and Biology, 10 counts; American History with Civics, 5 counts; Ancient History, or Modern European History II, 5 counts.

b. Elective subjects; 29 counts.

Any second year foreign language, 10 counts.

Any additional second year foreign language, namely, Latin, second year; French, second year; Spanish, second year; Italian, second year, 10 counts.

Physics, 5 counts; Chemistry, 5 counts; Biology, 5 counts; or, Botany, $2\frac{1}{2}$ counts; Zoology, $2\frac{1}{2}$ counts (must be taken together); Physical Geography, 5 counts; Intermediate Algebra, 2 counts; Advanced Algebra, 3 counts; Solid Geometry, 2 counts; Plane Trigonometry, 2 counts; Ancient History, 5 counts; Early European History I, 3 counts; Modern European History II, 5 counts; English History, 5 counts; Economics, 2 counts; Commercial Arithmetic, 2 counts; Elementary Bookkeeping and Business Practice, 3 counts; Advanced Bookkeeping and Office Practice, 5 counts; Shorthand, 100 word test, 10 counts; Drawing, first year, 3 counts; Drawing, second year, 6 counts; English, first year, 3 counts; English, second year, 6 counts; Physiology, 2 counts; Commercial Geography, $2\frac{1}{2}$ counts; Commercial Law, $2\frac{1}{2}$ counts.

II. For Partial High School Qualifying Certificate.

6. One year of high school work by earning 18 counts with a rating of at least 75 per cent in each subject.

Two years of high school work by earning 36 counts with a rating of at least 75 per cent in each subject.

Three years of high school work by earning 54 counts with a rating of at least 75 per cent in each subject.

Subjects to be selected from the lists mentioned above.

Note: Persons seeking a full Four-Year High School Qualifying Certificate must be governed by the conditions of I above, regarding required and elective subjects. 18, 36 and 54 counts cannot be merely added to a three-year, two-year and one-year certificate respectively and the total taken to make a full Four-Year High School Accredited Certificate.

7. Candidates for qualifying certificates by this method will be advised by the Bureau of Credentials upon presenting evidence of high school work on form D29, properly authenticated, as to the subjects in which it shall be necessary for them to take examinations to complete the requirements.

N. B. It is to be especially noted that the number of subjects and the counts given therefor toward a high school diploma of an approved school for a year of work in a high school bears no relation whatever to the count values given a year of work or to the separate subjects included in any year of work when application is made for a qualifying academic certificate.

SCHEDULE OF EXAMINATIONS FOR ACADEMIC COUNTS FOR THE QUALIFYING ACADEMIC CERTIFICATE

Examinations are held on the *last three Saturdays of April* and the *first three Saturdays of November* of each year under the direction of the respective county superintendents.

First Saturday Subjects

Counts

- A. M. (10) First Stenography and Typewriting (100 words per minute)
- (3) Elementary Bookkeeping and Business Practice
- (10) Third Year English
- (5) Biology
- (3) First Year English
- (6) Second Year English
- P. M. (5) Advanced Bookkeeping and Office Practice
- (3) Fourth Year English
- (5) English History
- (2) Solid Geometry
- (2) Economics
- (2½) Commercial Law

Second Saturday Subjects

- A. M. (5) Physical Geography
- (5) Modern European History II
- (2½) Botany }
- (2½) Zoology } Must be taken together
- (2) Physiology and Hygiene
- P. M. (3) Early European History I
- (5) Elementary Algebra
- (2) Plane Trigonometry
- (3) Advanced Algebra
- (2½) Commercial Geography

Third Saturday Subjects

- A. M. (5) Advanced U. S. History with Civics
- (5) Chemistry
- (10) French (2 years)
- (10) Latin (2 years)
- (10) Hebrew (2 years)
- (10) Greek (2 years)

- P. M. (5) Ancient History
 (3) Drawing (1 year)
 (6) Drawing (2 years)
 (5) Physics
 (10) German (2 years)
 (10) Spanish (2 years)
 (10) Italian (2 years)
 (2) Intermediate Algebra
 (2) Commercial Arithmetic

Notes

A *twenty days' notice* is required by the rules for entering these examinations. The place of holding examinations may be ascertained by applying to the county superintendent of the county in which you live.

No applicant will be admitted to the examination unless he has been granted the privilege by the Commissioner of Education.

New Jersey examinations are not open to non-residents unless the privilege is especially granted by the Commissioner of Education.

A fee of \$5 must be paid by new applicants. Any applicant who fails three times in a subject must pay an additional fee of \$3. Fee must be paid in cash, money order or *certified* check.

Questions for academic counts will be printed on paper different in color from the questions for teachers.

The responsibility for using the right set of questions will rest with the applicant.

The passing grade in each subject is 75 on a scale of 100.

Candidates credited with biology cannot also be credited with botany, zoology, and vice versa.

Candidates taking first and second year English cannot receive full credit for third year English. Candidates taking third year English cannot receive credit for separate examinations taken in first and second year English.

The requirements for the Nurse Certificate and Chiropody Certificate: 18 counts representing one year of high school work.

For the Optometry and Pharmacy Certificate: 36 counts representing two years of high school work.

Examinations are held on the last three Saturdays of April and the first three Saturdays of November of each year under the direction of the respective county superintendents.

It is still well to emphasize the fact that the 60 count certificate cannot be accepted, and that those who earned their credits by means of examinations must secure 72 counts. This rule has been in force since February 15, 1917. The fee for taking the examinations is \$5. It includes the cost of issuing one certificate.

Academic credentials are now required to enter most of the professions. The law has been changed in regard to medicine, requiring two years of work in a literary college including certain special subjects.

We have at the present time a fair reciprocity agreement with the states of New York and Pennsylvania, and are about to settle conditions of reciprocity with the State of Maryland. In dealing with credits that come to us from other states of the Union, it is the custom of the Department to submit credentials to the highest educational authority of the State in which the work has been done. Careful consideration has been given, during the past year, to returned soldiers whose education was interrupted by their voluntary or enforced service in the army. State boards in charge of the various professions have also been very generous in their treatment of returned soldiers.

The correspondence in connection with the Bureau has grown very much in the last two years. The addition of a great demand for securing certified public accountants' certificates to meet the general need for such workers has added much to the work of the Bureau.

Below you will find a statistical report showing the work of this Bureau up to the present time. The report shows the increase in the number of certificates issued. There seems to be a growing demand on the part of those who have failed to complete high school courses to apply to the Bureau for a remedy.

CERTIFICATES AND CREDENTIALS

	ACADEMIC		
	CERTIFICATES	CREDENTIALS	
	ISSUED	CERTIFIED	TOTAL
Medical	191	121	312
Dental	113	120	233
Law	125	61	186
Pharmacy	6	37	43
Chiropody	6	2	8
Optometry	12	3	15
Certified Public Accountants	22	14	36
Nurses	9	67	76
Miscellaneous .....	..	25	25
			934

APPLICANTS WHOSE CREDENTIALS ARE IN PROCESS OF INVESTIGATION

Medical	1758
Law	1843
Dental	775
Pharmacy	312
Nurse	400
C. P. A.	384
Optometry	75
Chiropody	76
Miscellaneous	893
	6516
Total number of certificates granted	934
Total number of cases pending	6516
Total number of cases considered during year.....	7450
Total number of certificates granted during 1918-19.....	934
Total number of certificates granted during 1917-18.....	787
Increase	147

The following statement, giving the number of applicants to whom certificates have been issued, shows the extent of the work for the different professions during a series of years.

SUMMARY OF CERTIFICATES ISSUED

	1902	1903	1904	1905	1906	1907	1908	1909	1910	
Medical .....	....	2	62	92	132	164	210	196	179	
Law	29	33	43	36	23	36	88	134	157	
Dental	36	28	19	39	34	32	28	10	28	
Pharmacy .....	....	....	....	11	....	....	....	7	8	
Chiropodist .....	....	....	....	....	....	....	....	16	4	
Optometry .....	....	....	....	....	....	....	....	....	....
C. P. A. ....	....	....	....	....	....	....	....	....	....
	1911	1912	1913	1914	1915	1916	1917	1918	1919	Total
Medical	306	182	246	194	195	222	143	130	191	2796
Law	148	158	177	172	137	129	166	108	125	1899
Dental	26	59	44	94	90	154	217	94	113	1145
Pharmacy	8	....	....	1	5	5	3	10	6	64
Chiropodist ...	11	10	15	20	15	3	7	14	6	121
Optometry ...	....	....	....	....	6	6	10	3	12	37
C. P. A. ....	....	....	....	....	3	8	10	9	22	52
Nurses .....	....	....	....	....	....	4	4	9	9	26
Miscellaneous .	....	....	....	....	....	....	10	10	....	20

SUMMARY OF STATISTICS

For the School Year Beginning July 1, 1918, and Ending June 30, 1919

RECEIPTS	1918-19			Increase or decrease compared with 1917-18
REVENUE RECEIPTS				
APPROPRIATED FROM STATE TREASURY				
Expenses State Board of Education	\$3,500 00			\$600 00
State Normal School at Glassboro	283,889 72			16,110 31
State Board of Examiners	10,000 00			2,000 00
Manual Training, State Aid	300,000 00			50,000 00
Vocational Schools, State Aid	40,000 00			
Vocational Teacher Training	20,320 00			7,320 00
Free School Libraries, State Aid	4,985 06			2,014 94
Teachers' Institutes	2,000 00			
Teachers' Libraries	300 00			
School Fund Expenses	3,500 00			500 00
Teachers' Retirement Fund Expenses	14,950 00			2,050 00
Reduction of State School Tax	100,000 00			
	<u>\$783,444 78</u>			<u>40,344 78</u>
Manual Training State Aid, excess receipts reported by County Superintendents	2,784 07			663 75
RECEIVED FROM FEDERAL GOVERNMENT				
Teacher Training	19,379 97			5,537 93
Trades and Industries	33,821 93			11,273 98
Agriculture	9,574 03			3,191 34
	<u>62,775 93</u>			<u>20,002 35</u>
APPROPRIATED FROM STATE RAILROAD TAX				
Salary of Commissioner of Education	10,000 00			
Salary of Assistant Commissioners	18,000 00			
Transferred from Account 18-G	400 00			400 00
Salary of Inspector of Buildings	3,000 00			200 00
Salary of Inspector of Accounts.....\$2,800.00				
Less transfers 1,133.30	1,666 70			1,133 30
Clerical Services	27,025 00			
Transferred from 18-G	233 30			3,758 30
Traveling expense—Special War Work	500 00			500 00
Blanks and stationery	19,000 00			
Incidental expenses	12,200 00			200 00
Education Bulletin	1,300 00			
Transferred from Account 18-G	500 00			500 00
Legislative Manuals	2,000 00			500 00
Physical Training	10,000 00			2,000 00
County Superintendents, salaries	63,000 00			
Evening schools for foreign-born residents (From county superintendents reports)	5,815 83			6,184 17
Summer Courses in Agriculture and Home Economics	12,000 00			2,000 00

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SUMMARY OF STATISTICS—Continued

For the School Year Beginning July 1, 1918, and Ending June 30, 1919

RECEIPTS (Continued)	1918-19			Increase or decrease compared with 1917-18
Vocational Schools, State Aid...	64,606 13			
County Vocational Schools.....	8,170 00			2,272 68 D
Pensions of Teachers	249,013 55			93,103 75 I
State Normal School at Newark.				
Maintenance	17,850 00			91,150 00 D
Salaries and wages	88,000 00			88,000 00 I
Repairs and replacements	6,300 00			2,300 00 I
Furniture	2,000 00			2,000 00 I
Practice teaching	15,000 00			1,000 00 I
State Normal School at Trenton.				
Maintenance	19,000 00			84,000 00 D
Salaries and wages	94,500 00			94,500 00 I
Repairs and replacements	16,500 00			500 00 D
Insurance	2,000 00			300 00 D
Practice teaching	10,000 00			
Received for tuition	3,000 00			3,000 00 I
State Normal School at Montclair				
Maintenance	15,950 00			56,875 00 D
Salaries and wages	65,150 00			65,150 00 I
Repairs and replacements	9,000 00			1,000 00 D
Insurance	838 00			838 00 I
Practice teaching	15,000 00			
New Jersey School for the Deaf				
Maintenance, salaries and wages included	96,212 50			29,212 50 I
Miscellaneous	Included above			6,700 00 D
New buildings	25,000 00			25,000 00 I
Receipts	1,421 78			1,421 78 I
Manual Training and Industrial School for Colored Youth				
Maintenance (salaries and wages included)	49,150 00			9,150 00 I
Repairs and replacements....	7,600 00			6,100 00 I
Miscellaneous	8,550 00			8,550 00 I
New buildings	19,600 00			14,900 00 D
Received for tuition	15,137 70			6,989 68 I
	1,111,190 49			172,358 86 I
TOTAL STATE APPROPRIATION.....		1,894,635 27		212,703 64 I
State School Fund		250,000 00		
State School Tax		7,842,323 68		527,300 14 I
Railroad Tax (received by counties)		3,171,004 98		193,480 66 I
FROM DISTRICT TAXES (School Year).				
Current expenses	13,533,032 33			3,051,582 86 I
Manual Training	500,418 39			33,534 63 I
Vocational schools	178,388 16			35,580 23 I
Vocational schools—County.....	77,597 62			77,597 62 I
School Libraries	18,612 09			842 04 I
Evening schools for Foreign-born residents	11,716 66			7,457 54 I
Redemption of bonds	1,073,524 22			425,145 74 I
Interest on bonds	2,282,763 87			68,717 16 I
From district tax for notes authorized by vote of the district	100,951 53			26,910 31 I
From district tax for interest on notes authorized by vote of the district	14,025 68			1,654 62 I
From district tax for sinking fund	606,257 71			63,104 99 I
Purchase of land	158,527 57			109,977 28 I

SUMMARY OF STATISTICS—Continued

For the School Year Beginning July 1, 1918, and Ending June 30, 1919

RECEIPTS (Continued)	1918-19			Increase or decrease compared with 1917-18
Building, enlarging, altering, re- pairing, leasing, furnishing, equipping school buildings ...	1,690,817 65	.....	.....	497,356 49 I
Outhouses and toilets	2,762 06	.....	.....	4,159 03 D
		\$20,249,895 54	.....	4,895,302 43 I
OTHER SOURCES OF RECEIPTS.				
Manual Training'	27,633 45	.....	.....	12,433 31 I
Library Purposes	5,028 50	.....	.....	174 49 I
Tuition Fees	*533,048 92	.....	.....	47,468 33 I
Interest on Deposits	103,683 70	.....	.....	5,894 62 D
Sale of school books	3,851 08	.....	.....	512 54 I
Defacement of property	2,228 90	.....	.....	47 37 I
Return premium—fire insurance	6,007 99	.....	.....	3,478 64 I
Vocational schools	11,654 41	.....	.....	28,632 63 D
Vocational schools—county.....	27,298 78	.....	.....	27,298 78 I
Accrued interest on bonds.....	10,500 21	.....	.....	78,620 14 D
Evening schools for foreign-born residents	204 16	.....	.....	204 16 I
All other sources	227,708 23	.....	.....	59,676 02 I
		\$958,848 33	.....	38,146 25 I
MISCELLANEOUS.				
Interest on surplus revenue....	.....	28,463 21	.....	304 16 I
Appropriated by counties for ex- penses of county superintend- ents .....	.....	10,478 40	.....	1,797 26 I
Apportioned by counties for sal- aries of county superintend- ents' clerks .....	.....	17,160 00	.....	1,816 00 I
Subscriptions for teachers' li- braries .....	.....	200 00	.....	100 00 I
TOTAL REVENUE RECEIPTS (during year) .....	.....	.....	\$34,488,069 41	5,891,616 61 I
NON-REVENUE RECEIPTS				
Sale of bonds, building, enlarg- ing, remodelling, furnishing, equipping school buildings ...	\$643,335 10	.....	.....	1,971,774 42 D
Purchase of land	119,637 60	.....	.....	197,333 14 D
		\$762,972 70	.....	2,169,107 56 D
Sale of buildings .....	.....	11,858 63	.....	821 03 I
Sale of furniture, etc.....	.....	14,577 11	.....	12,829 00 I
Sale of land .....	.....	29,100 00	.....	26,990 00 I
Fire insurance .....	.....	16,275 51	.....	7,524 86 I
Other non-revenue receipts ....	.....	562,470 31	.....	475,211 77 I
TOTAL NON-REVENUE RECEIPTS (during year) .....	.....	.....	1,397,254 26	1,645,730 90 D
RE-APPORTIONED BALANCE .....	.....	.....	2,185 21	1,725 21 I
GRAND TOTAL RECEIPTS (during year) .....	.....	.....	35,887,508 88	3,747,610 92 I
BALANCE ON HAND (beginning of year) .....	.....	.....	4,330,724 77	2,271,622 08 D
GRAND TOTAL RECEIPTS DURING YEAR AND BALANCE.....	\$40,218,233 65	\$1,475,988 84 I

*Tuition money is a duplication of receipts.

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SUMMARY OF STATISTICS—*Continued*

For the School Year Beginning July 1, 1918, and Ending June 30, 1919

DISBURSEMENTS	1918-19			Increase or decrease compared with 1917-18
DISBURSEMENTS				
ADMINISTRATIVE EXPENSES—STATE				
STATE BOARD OF EDUCATION, EXPENSES	\$2,834 76	.....	.....	\$1,059 05 I
STATE NORMAL SCHOOL AT GLASSBORO	28 10	.....	.....	16,087 18 D
DEPARTMENT OF PUBLIC INSTRUCTION, EXPENSES				
Salary, Commissioner of Education	10,000 00	.....	.....	3,333 33 I
Salary, Assistant Commissioners	18,248 22	.....	.....	6,248 22 I
Salary, Inspector of Accounts	1,666 70	.....	.....	199 97 D
Salary, Inspector of Buildings	3,000 00	.....	.....	1,133 33 I
Clerical Services	26,754 05	.....	.....	11,070 43 I
Blanks and stationery	16,654 87	.....	.....	2,345 13 D
Incidental Expenses—Traveling Expenses.				
Chas. McDermott. \$781 10				
Henry Huston .. 439 89				
C. N. Kendall.... 341 01				
Zenos E. Scott... 732 36				
Wesley A. O'Leary 445 71				
Edw. A. Reuther.. 543 46				
A. B. Meredith... 786 73				
Iris Prouty O'Leary 210 21				
H. O. Sampson... 467 44				
Herbert N. Morse 238 81				
T. D. Sensor..... 21 74				
John Enright..... 27 60				
Marianna G. Pack- er	112 56			
Harriet Hawley... 5 45				
F. W. Maroney.. 136 05				
Frances V. Smith. 7 51				
John S. Mount.. 60 35				
\$5,357 98				
Office fixtures, postage, etc. .. 6,412 87	11,770 85	.....	.....	5,181 83 I
Education Bulletin	1,745 85	.....	.....	920 60 I
Physical Training	9,876 64	.....	.....	6,416 70 I
Legislative Manuals	2,000 00	.....	.....	500 00 D
Teacher Training and Agri- cultural Supervision	10,263 04	.....	.....	7,915 74 I
Traveling expenses and pur- chases from Smith-Hughes Fund—State	1,397 65	.....	.....	1,397 65 I
STATE BOARD OF EXAMINERS, EXPENSES	7,351 92	.....	.....	560 40 I
SUMMER SCHOOLS—Agriculture, Home Economics	11,603 66	.....	.....	11,346 01 I
Special War Work—traveling expenses	389 78	.....	.....	389 78 I
Vocational Schools	\$40,000 00	.....	.....	.....
Teachers' Institutes	1,773 18	.....	.....	\$1,087 66 I
COUNTY SUPERINTENDENTS.				
Salaries—paid by the State...	63,000 00	.....	.....	21,000 00 I
Clerical services—paid by counties	17,160 00	.....	.....	1,816 00 I
Expenses—paid by counties..	10,478 40	.....	.....	1,797 26 I
State School Fund Expenses...	2,578 96	.....	.....	454 67 I
Teachers' Retirement Fund Ex- penses	13,034 09	.....	.....	4,622 04 I
Teachers' Pensions	249,013 55	.....	.....	93,103 75 I

SUMMARY OF STATISTICS—*Continued*

For the School Year Beginning July 1, 1918, and Ending June 30, 1919

DISBURSEMENTS (Continued)	1918-19			Increase or decrease compared with 1917-18
EXPENDED FROM FEDERAL GOVERNMENT FUNDS. Teacher Training Trades and Industries Agriculture	10,523 26 24,214 71 9,574 03	..... ..... .....	..... ..... .....	8,147 00 5,682 00 3,277 00
TOTAL EXPENDITURES OF STATE ADMINISTRATION .....	.....	.....	\$576,931 27	178,830 00
STATE EDUCATIONAL INSTITUTIONS. State Normal School at Trenton. Maintenance Repairs and improvements and insurance Practice teaching New buildings, etc.....	\$112,658 79 21,723 76 9,911 34 .....	..... ..... ..... 144,293 89	..... ..... ..... .....	28,474 75 4,905 75 85 00 2,301 00 30,994 25
State Normal School at Montclair. Maintenance Repairs and insurance Practice teaching	\$81,592 19 11,575 59 11,525 10	..... ..... 104,692 88	..... ..... .....	15,416 00 1,624 00 596 00 16,444 00
State Normal School at Newark. Maintenance Repairs and insurance Supplies Practice teaching	\$83,561 70 6,520 84 11,803 44 12,166 74	..... ..... ..... 114,052 72	..... ..... ..... .....	10,275 00 4,191 00 11,803 00 1,310 00 27,580 00
New Jersey School for the Deaf. Maintenance Repairs, insurance, etc..... Land and new site	\$93,008 32 2,631 86 25,000 00	..... ..... 120,639 68	..... ..... .....	36,775 00 6,620 00 25,000 00 55,155 00
Bordentown Industrial School for Colored Youth. Maintenance Repairs, replacements Miscellaneous New buildings, improvements, etc.	\$63,766 09 7,600 00 8,550 00 19,600 00	..... ..... ..... \$99,516 09	..... ..... ..... .....	\$25,348 50 6,100 00 8,550 00 17,421 00 22,577 00
TOTAL EXPENDED FOR STATE INSTITUTIONS .....	.....	.....	\$583,195 26	152,752 00
ADMINISTRATIVE EXPENSES—Districts.				
Salaries, supplies and expenses of boards of education and business offices Salaries of superintendents..... Salaries of assistant superin- tendents .....	..... \$149,845 00 33,550 00	..... \$309,462 36 183,395 00	..... ..... .....	76,906 00 11,945 00 13,250 00 25,195 00
Expenses of superintendents, etc. Salaries of District Clerks or Secretaries Salaries, Custodians of School Moneys Compulsory attendance, salaries, etc. 186,090 45	105,496 45 154,548 55 37,805 34 976,798 15	36,492 00 17,474 00 5,227 00 33,997 00 195,293 00

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SUMMARY OF STATISTICS—Continued

For the School Year Beginning July 1, 1918, and Ending June 30, 1919

DISBURSEMENTS (Continued)	1918-19		Increase or decrease compared with 1917-18
INSTRUCTION EXPENSES.			
DAY SCHOOLS.			
Salaries, supervisors, principals and teachers including special summer schools	\$17,773,267 17	.....	2,620,998 41 I
Expenses special summer schools	13,370 05	.....	11,221 54 D
Textbooks	469,918 89	.....	29,774 38 I
Supplies and other expenses of instruction	684,352 45	.....	9,921 82 I
Apparatus purchased with current expense funds	111,532 01	.....	28,262 91 I
Helping teachers	35,443 00	.....	5,159 80 I
County truant officers	2,280 00	.....	230 00 I
Supervisor child study	1,850 00	.....	.....
		19,092,013 57	2,683,125 78 I
EVENING SCHOOLS.			
Salaries of teachers, etc.	\$142,065 99	.....	\$14,010 71 D
For all other salaries, supplies, etc.	26,668 71	.....	3,852 72 D
		\$168,734 70	17,863 43 D
EVENING SCHOOLS FOR FOREIGN-BORN RESIDENTS.			
Salaries, principals and teachers	12,302 71	.....	6,864 12 I
Textbooks and supplies	781 79	.....	485 23 I
Janitors' salaries	1,367 50	.....	155 52 I
Other expenditures	736 95	.....	103 89 I
		15,188 95	7,608 76 I
MANUAL TRAINING—DAY.			
Salaries, supervisors, principals, etc.	563,433 05	.....	64,601 08 I
Material and supplies	157,956 00	.....	7,859 65 D
Repairs and replacements	14,481 71	.....	3,317 89 I
New equipment	36,261 29	.....	16,048 79 D
Other expense	12,962 86	.....	1,716 45 I
		785,094 91	45,726 98 I
MANUAL TRAINING—EVENING.			
Salaries, supervisors, principals, etc.	358 00	.....	44 00 I
Material and supplies	1,759 23	.....	294 52 I
		2,117 23	338 52 I
VOCATIONAL SCHOOLS—DAY.			
Salaries, supervisors, principals, etc.	150,335 82	.....	16,126 43 I
Material and supplies	21,485 65	.....	801 96 I
Repairs and replacements	7,315 82	.....	4,294 53 I
New equipment	5,391 13	.....	26,438 12 D
All other expense	11,890 07	.....	15,386 98 D
		196,418 49	20,602 18 D
VOCATIONAL SCHOOLS—EVENING.			
Salaries, supervisors, principals, etc.	45,920 50	.....	277 05 D
Material and supplies	3,487 52	.....	1,172 51 D
Repairs and replacements	728 13	.....	39 27 I
New equipment	196 73	.....	2 20 D
All other expense	5,588 04	.....	1,871 93 D
		55,920 92	3,284 42 D

SUMMARY OF STATISTICS—*Continued*

For the School Year Beginning July 1, 1918, and Ending June 30, 1919

DISBURSEMENTS (Continued)	1918-19			Increase or decrease compared with 1917-18
VOCATIONAL SCHOOLS—COUNTY.				
Salaries, supervisors, principals, etc.	\$49,895 25	.....	.....	\$49,895 25
Material and supplies	9,226 58	.....	.....	9,226 58
Repairs and replacements	683 47	.....	.....	683 47
New equipment	18,901 73	.....	.....	18,901 73
All other expense	39,104 44	.....	.....	39,104 44
		\$117,811 47	.....	117,811 47
AUXILIARY AGENCIES—EXPENSES.				
Teachers' Libraries		200 00	.....	50 00
Transportation pupils—other districts	334,964 74	.....	.....	55,139 44
Transportation pupils—within districts	320,917 98	.....	.....	71,216 47
		655,882 72	.....	126,355 45
Medical inspection, salaries, supplies .....	.	320,717 11	.....	36,012 52
Lectures and recreation (playgrounds)		62,408 21	.....	3,729 11
SCHOOL LIBRARIES.				
Salaries of librarians	\$9,004 56	.....	.....	721 85
For library books	18,916 04	.....	.....	653 22
For apparatus	3,312 20	.....	.....	2,051 27
Educational works of art	869 82	.....	.....	487 34
		27,102 62	.....	2,469 51
MISCELLANEOUS.				
Tuition paid to other school districts	518,047 45	.....	.....	59,431 87
Leasing school buildings	25,071 36	.....	.....	3,546 14
Interest on temporary loans	85,198 81	.....	.....	37,769 57
Authorized loans	5,000 00	.....	.....	5,000 00
Telephone service	38,212 51	.....	.....	5,819 47
Incidental expenses	108,623 26	.....	.....	26,250 32
		780,153 39	.....	137,818 64
TOTAL INSTRUCTION EXPENSES....			\$23,256,562 44	3,302,101 99
OPERATION OF SCHOOL PLANT—EXPENSES.				
Wages, janitors, engineers, firemen	\$1,685,995 39	.....	.....	278,616 11
Wages of other employees	81,070 22	.....	.....	8,248 00
Fuel	1,096,559 06	.....	.....	161,808 46
Water, light and power	237,319 36	.....	.....	26,218 57
Janitors' supplies	166,966 55	.....	.....	30,467 87
		3,267,910 58	.....	488,862 52
MAINTENANCE OF SCHOOL PLANT.				
Ordinary repairs (current upkeep)	\$775,400 67	.....	.....	\$119,321 58
Repairs and replacement of equipment	204,094 36	.....	.....	39,532 01
Insurance	157,519 04	.....	.....	25,898 52
Outhouses or waterclosets—repairs	678 23	.....	.....	4,684 87
		\$1,137,692 30	.....	180,067 91
LAND AND BUILDINGS.				
Purchase of land	222,707 27	241,106 35
Building, enlarging school-houses	1,864,124 16	2,544,666 44

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SUMMARY OF STATISTICS—Continued

For the School Year Beginning July 1, 1918, and Ending June 30, 1919

DISBURSEMENTS (Continued)	1918-19		Increase or decrease compared with 1917-18
Extraordinary repairs	454,677 42	.....	166,142 11 I
Furniture and equipment	230,709 21	.....	48,200 09 D
		2,772,218 06	2,667,830 88 D
OTHER PAYMENTS.			
Redemption of bonds	1,000,172 25	.....	368,386 54 I
For payments to sinking fund	620,307 51	.....	53,144 00 I
Interest on bonds	2,294,052 24	.....	16,041 52 D
Payment notes authorized by vote of the district	102,125 53	.....	31,406 77 I
Interest on notes authorized by vote of the district	13,934 70	.....	1,513 57 I
		4,030,593 23	488,409 36 I
TOTAL EXPENSES		\$35,625,103 14	2,073,193 83 I
Unused State Appropriation lapsed into State Fund		299,203 02	8,810 81 D
Balance of Federal Funds carried over to 1919-20		18,463 93	2,894 47 I
Unused Railroad Fund lapsed into State Fund		23,679 10	136,452 25 D
		\$35,966,449 19	1,930,825 24 I
Balance reported remaining with custodians of school moneys on June 30th, 1919		4,251,784 46	454,886 40 D
TOTAL PAYMENTS, AMOUNTS LAPSED AND BALANCE		\$40,218,233 65	\$1,475,988 84 I
COST OF EDUCATION (Based on expenses of maintaining the public day schools).	1918-19		Increase or de- crease com- pared with 1917-18
Administrative expense—school districts.....	\$976,798 15	.....	\$195,292 58 I
Instruction expense—day schools.....	19,092,013 57	.....	2,683,125 78 I
Transportation expense	655,882 72	.....	126,355 45 I
Medical inspection expense.....	320,717 11	.....	36,013 55 I
Operation of school plant.....	3,267,910 58	.....	488,862 92 I
Maintenance of school plant.....	1,137,692 30	.....	180,067 28 I
Current expense		\$25,451,014 43	3,709,718 56 I
Average yearly cost per pupil based on total enrollment in day schools		44 53	5 84 I
Average yearly cost per pupil based on attend- ance in day schools.....		58 47	7 17 I
ENROLLMENT AND ATTENDANCE	1918-19		Increase or de- crease compared with 1917-18
DAY SCHOOLS ONLY			
Boys enrolled in day schools.....	287,909		5,120 I
Girls enrolled in day schools.....	283,525		4,489 I
Total enrollment in day schools	571,434		9,609 I
Total number days present—day schools.....	75,930,011		2,504,190½ D
Average daily attendance	435,209		11,459 I

SUMMARY OF STATISTICS—*Continued*

For the School Year Beginning July 1, 1918, and Ending June 30, 1919

ENROLLMENT AND ATTENDANCE (Continued)	1918-19	Increase or decrease compared with 1917-18
Average attendance of each pupil—day schools	133 days	6 days
Possible number of days attendance—day schools	85,479,003	3,385,323
Total number of days absent	9,548,992	881,132½
Average absence of each pupil	16 days	2 days
Per cent of attendance	.88	
Total attendance in day and evening schools, including all allowances as per law (not actual attendance)	85,389,396	3,476,804
Total number of times tardy	673,819	90,057
Sum of number of teaching sessions as reported in all registers—day schools	4,759,673	72,858
Average number of cases of tardiness per session	.14156	
Pupils neither absent nor tardy—day schools	14,278	2,012
Sessions truant—day schools	71,780½	13,603
Total number of days transported	2,278,589	162,499½
Pupils transported within district for whom cost of transportation is paid	11,359	682
Pupils transported from without district, for whom cost of transportation is paid	7,320	352
Pupils enrolled who have attended public school in other districts in the State during the present school year	19,979	405
Cases of suspension or expulsion during year	1,634	55
Enrollment—		
Kindergarten	40,428	570
Grades I-IV	272,358	4,612
Grades V-VIII	174,695	7,166
Grades IX-XII	48,199	1,607
Rural schools—one room	18,577	1,438
Rural schools—two room	14,231	269
Subnormal classes	2,491	10
Classes for blind	40	12
Classes for deaf	101	6
Training classes	99	78
Classes for anaemic pupils	40	40
Classes for backward and incorrigible pupils	73	73
Other special classes	102	6
Number of children public schools will seat	570,061	6,018
EVENING SCHOOLS		
Number of evenings the schools were maintained, including legal holidays and institute days	72	4
Male pupils enrolled	14,909	4,766
Female pupils enrolled	10,651	3,262
Total pupils enrolled in evening schools	25,560	8,028
Total attendance (1 night = ½ day)	327,036	91,944
Men teachers	407*	24
Women teachers	432	17
Total teachers employed in evening schools	839	41
Total salaries of evening school teachers	\$203,848 71†	\$35,379 56
Average salary per night paid to men teachers	3 83	65
Average salary per night paid to women teachers	2 93	47
Amount expended for all other salaries, supplies, etc.	26,668 71	3,852 71

*Some county superintendents included manual training and vocational teachers in this figure, which is not correct.

†This amount does not agree with the figure given in the financial table, as some county superintendents included salaries of manual training and vocational teachers.

SUMMARY OF STATISTICS—*Continued*

For the School Year Beginning July 1, 1918, and Ending June 30, 1919

NUMBER OF TEACHERS	1918-19			Increase or decrease compared with 1917-18		
	Men	Women	Total	Men	Women	Total
Total number of teachers, day and evening....	2,233	15,774	18,007	181 D	445 I	264 I
Superintendents	38					
Assistant Superintendents (An assistant superintendent is one who stands in very intimate relation to the superintendent and whose duties are mainly connected with supervision of instruction and with general oversight of a system under the direction of the superintendent)	7	2	9	2 I	2 I	4 I
Approved Supervising Principals	74	4	78	5 D	1 I	4 D
Unapproved Supervising Principals (Those who devote their time to administration and supervision of instruction of a group of schools)	78	20	98	2 I	4 I	6 I
Non-teaching Principals (Those who devote their time to administration and supervision of instruction of a school)	256	170	426	1 I	19 I	20 I
Supervisors (Those who direct and assist teachers in matters pertaining to instruction other than supervising and non-teaching principals)	9	56	65	4 I	15 I	19 I
Special Supervisors (Those who assist teachers in matters pertaining to instruction in special subjects)	57	191	248	1 D	7 I	6 I
Teachers rural schools (one room) (A rural school is one located either in the open country or a village, the majority of whose pupils are the children of farmers and others living in the open country)	55	507	562	6 I	58 D	52 D
Teachers rural schools (two room) (Teachers considered in the one and two room rural school tables are not considered in the grade teachers' tables)	33	392	425	15 D	21 I	6 I
Teachers Kindergarten		703	703		10 I	10 I
Teachers Grades I-IV	5	6,217	6,222	1 D	144 I	143 I
Teachers Grades V-VIII	173	4,405	4,578	44 D	127 I	83 I
Teachers IX-XII	674	1,373	2,047	41 D	19 I	22 D
Teachers Junior High VII-IX	18	77	90	13 I	77 I	90 I
Short term teachers (Teachers teaching not less than four months but not for the full term. A teacher teaching less than four months is classed as a substitute teacher)	2	49	51	7 D	12 I	5 I
Substitute Teachers (Teachers not assigned to regular classes or teaching for less than four months)		53	53	4 D	7 D	11 D
Special Teachers—Ungraded, backward and incorrigible classes	6	42	48	2 D	1 D	3 D
Special Teachers—Teacher Clerks (Regularly certified teacher used as temporary substitute and general assistant to principal)		218	218		26 I	26 I
Manual Training Teachers—Day (Including supervisors and teachers devoting full time to the work. Those not devoting full time are classed as regular day school teachers and not manual training teachers)	209	264	473	15 I	2 D	13 I
Manual Training Teachers—Evening	22	2	24		8 D	8 D
Vocational Teachers—Day	45	55	100	5 D	1 I	4 D
Vocational Teachers—Evening	113	73	186	6 I	5 D	1 I
Evening School Teachers (Teachers considered in the day school tables and teaching in the evening schools are considered in this table)	258	319	577	115 D	93 D	208 D
Foreign-born Evening School Teachers (Receiving State Aid)	25	82	107	8 I	47 I	55 I
Special Teachers—Subnormal Classes	2	165	167	2 D	5 I	3 I
Special Teachers—Deaf Classes		13	13		1 I	1 I
Special Teachers—Blind Classes		4	4		1 I	1 I
Special Teachers—Unclassified	79	318	397	4 I	80 I	84 I

SCHOOL REPORT.

SUMMARY OF STATISTICS—Continued

For the School Year Beginning July 1, 1918, and Ending June 30, 1919

NUMBER OF TEACHERS (Continued)	1918-19			Increase or decrease compared with 1917-18		
	Men	Women	Total	Men	Women	Total
Trained Teachers, men and women			14,111			303 I
Untrained Teachers, men and women (Exclu- sive of evening school teachers)			3,002			121 I
SALARIES OF TEACHERS	1918-19		Increase or decrease compared with 1917-18			
	Men	Women	Men	Women		
Average salary per year paid to all day school teachers (17,066) not including superintend- ents, assistant superintendents or evening school teachers of any kind	\$1,083 27		\$134 98 I			
Average salary per month paid to all day school teachers	130 51		23 96 I			
Average salary per year paid to						
Superintendents	\$3,943 29		\$314 34 I			
Approved Supervising Principals	2,062 73	2,215 00	154 62 I		\$263 34 I	
Unapproved Supervising Principals	2,211 53	1,568 50	188 13 I		62 25 I	
Non-teaching Principals	2,598 97	1,690 50	149 76 I		115 00 I	
Supervisors	1,810 37	1,510 25	99 63 D		29 77 I	
Special Supervisors	1,776 84	1,199 14	157 02 I		121 26 I	
Rural School Teachers—one room	679 95	643 09	65 94 I		98 87 I	
Rural School Teachers—two-room	793 30	673 62	73 79 I		88 75 I	
Kindergarten Teachers		903 02			89 53 I	
Elementary Teachers—Grades I-IV	856 00	880 67	13 66 D		89 58 I	
Elementary Teachers—Grades V-VIII	1,156 67	986 86	110 23 I		98 34 I	
Junior High School Teachers—Grades VII-IX	1,473 08	1,015 58	1,473 08 I		1,015 58 I	
High School Teachers—Grades IX-XII	1,906 45	1,213 91	182 38 I		104 91 I	
Short Term Teachers	975 00	578 87	228 67 I		97 89 I	
Substitute Teachers		590 99			70 64 I	
Special Teachers—Ungraded, backward and incurrible classes	1,358 33	1,073 12	170 83 I		131 03 I	
Teacher-Clerks		926 08			104 88 I	
Manual Training Teachers—Day Schools....	1,342 58	1,061 01	119 80 I		106 19 I	
Vocational Teachers—Day Schools	1,665 33	1,261 52	237 69 I		111 11 I	
Average salary paid per night to						
Manual Training Teachers—Evening Schools	2 50	1 97	08 I			
Vocational Teachers—Evening Schools	4 59	3 66	48 I		57 I	
Evening School Teachers	3 48	2 83	31 I		38 I	
Foreign-born Evening School Teachers	3 05	1 62	36 I		49 D	
SCHOOL TERM	1918-19		Increase or decrease compared with 1917-18			
Average time schools were maintained (A school month is 20 days)	8 mos. 6 days (166 days)				12 days D	

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SUMMARY OF STATISTICS—*Continued*

For the School Year Beginning July 1, 1918, and Ending June 30, 1919

SCHOOL DISTRICTS. HOUSES. ETC.	1918-19	Increase or decrease compared with 1917-18
School districts	490	3 I
Buildings owned	2,097	18 D
Buildings rented	66	
Total school buildings	2,163	18 D
Classrooms	15,016	350 I
Buildings completed during year	19	23 D
Buildings enlarged or remodeled during year..	18	19 D
One room buildings	709	51 D
Two room buildings	302	21 I
Three room buildings	68	1 D
Four room buildings	208	
Five or more room buildings	881	18 I
VALUATION OF SCHOOL PROPERTY		
Total value of school property	\$88,580,432 05	\$3,580,466 12 I
Average value of New Jersey school buildings..	38,640 97	1,960 57 I
GRADUATES OF STATE NORMAL SCHOOLS		
Trenton	265	27 D
Montclair	211	47 D
Newark	386	66 D

In conclusion I wish to again call attention to the miserable quarters in which the Department of Public Instruction of the State is housed. These quarters are inconvenient, inadequate, poorly arranged and discreditable to the State.

The educational department is the most important department of the State. It is not in conformity with the dignity of this department to be housed in the quarters assigned to it.

There is probably no local superintendent's office in the State which is not in better quarters than the State Department of Public Instruction.

There is probably no department of public instruction in any other State which has quarters like those occupied by this department in New Jersey.

In this connection I call attention again to the fact that we have a great many records and documents pertaining to teachers' certificates and other important matters which are subject to fire hazards and which should be better protected by adequate fire-proof vaults.

Respectfully submitted,

A handwritten signature in cursive script, reading "Calvin N. Keddell". The signature is written in dark ink and is positioned above the printed name of the Commissioner of Education.

Commissioner of Education

PART II

REPORTS OF ASSISTANT COMMISSIONERS

For year ending June 30, 1919

ELEMENTARY EDUCATION

PREPARED BY

ZENOS E. SCOTT

Assistant Commissioner in charge of Elementary Education

I respectfully submit the following report for the school year 1918-19.

QUALITATIVE STANDARDS AS GUIDES IN TEACHING AND SUPERVISION

As Assistant Commissioner in charge of Elementary Education it is necessary, in order that my work be of greatest help, to have definite policies as guides in supervision. The policies stated in my annual report of 1917-18 have been used this year also. These policies are so important to this department and to those who are working in supervision that I deem it important to re-state them in this report.

1. That all teachers are expected to grow in teaching skill through teaching.
2. That all supervisors are expected to become better supervisors through the work of classroom supervision.
3. That supervision to be worth while must be constructive in its policies.
4. That if supervision is to create enthusiasm among the supervising and teaching bodies it must be favorable wherever possible. That whatever negative criticism is given, the ways to improve the situation must be illustrated in detail.
5. That the various supervisors of the State have definite policies of their own, which are to be talked over in group meetings of supervisors and changed whenever they are out of harmony with the common practice of progressive supervision.
6. That supervisors keep a record of the supervision which they do from day to day. It is only in this way that supervisors are able to improve their practice. Mistakes which they make can, in this way, become really great opportunities through which they increase their supervisory skill.
7. That supervision be optimistic. Good supervision expects the teacher to do tasks which are difficult. But optimistic leadership stimulates the teacher to utilize the difficult situations as opportunities by which to increase in "good teaching."
8. That supervisors must make special use of their teachers of marked ability by having them give demonstration teaching, assist in the making of lesson plans, programs and the course of study, help at teacher conferences, etc.
9. That supervision must so direct the work of the teacher that she feels

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the necessity of utilizing the varying abilities of the children of her room or school. This makes it possible for both the supervisors and the teachers to recognize the individual differences in abilities of children and to teach and supervise in accordance with such varying abilities.

10. That supervision place before the teacher constantly "better teaching" as a goal. That "better teaching" means furnishing situations in which pupils enjoy each school day; in which they exercise group cooperation, in play, in games, in study period, in recitation, in opening exercises, in community exercises, situations in which teacher and pupils work together for correct habit formation and citizenship training.

11. That the supervisor of a given school or system is responsible for all the school activities. Therefore manual training, domestic science and art, physical training and good health are schoolroom results for which he is responsible.

12. That the supervisor is responsible for mobilizing the thought of his community around schoolroom and community problems. This policy in supervision emphasizes the fact that the supervisor's work does not stop at the end of a school day, or when the supervisor has stepped outside a schoolroom situation, but that it extends out into the community, giving the community an attitude of mind toward the value of the schools as the instrument by which the boys and girls of the community are made into worth-while citizens.

GENERAL PROGRESS IN TEACHING AND SUPERVISION

Among the large contributions that the teachers and supervisors have made to their profession in the last few years, there is none more important than that which has been achieved through interest and participation in community activities, State and national patriotism, war drives and allied work. There is no doubt but that important lessons learned from such activities have been most helpful to supervisors and teachers. The influence upon those of us engaged in the profession has been as helpful as that exerted upon the pupils of our schools. The general effect of this plus the keener interest taken in the actual supervising and teaching of schools has been such that many latent abilities in supervisors and teachers have been brought out. We are now fully conscious that it is our province as supervisors and teachers to be responsible for mobilizing around larger educational problems of the day the thought of the communities in which we work. As leaders we are taking more active parts than ever before in general community and State problems. Our advice is more eagerly sought after, our minds are more open to problems which are somewhat outside of classroom activities. This is a wholesome condition, and it indicates that the public at large and the nation have placed more confidence in us as supervisors and teachers.

It is most encouraging to state that our profession has met these added responsibilities in a very superior way, and it is also encouraging that the general public, when awakened to the importance of the work of the supervisors and teachers, is becoming more and more willing to show appreciation for the work which is being done by the teachers and supervisors in the public schools of the State.



Class of Blind Children—Newark

School for the Deaf—Newark

Class in Cobbling—Newark

Motor Dental Clinic—Burlington County

COUNTY INSTITUTES

During the school year 1918-19 county institutes were held in twelve counties. On account of the great number of days in which the schools throughout the State were closed because of the influenza epidemic, these institutes were held on Saturdays. Even though the institutes were held on Saturdays, a high percentage of attendance was obtained in all counties. Such showing is a credit to the teachers of New Jersey. In some counties as high as 95 per cent of the teachers attended these institutes. On the whole they were very successful meetings.

These county institutes, held at the time when America was putting forth her greatest efforts in the war, were really great patriotic school days in New Jersey.

The general work of the institute centered around patriotic and war time questions of the day, community singing, thrift, Red Cross work and allied war drives. The community singing engendered in the institutes carried over very excellently into the regular school work. The patriotic addresses given by the various men on the program stimulated even greater patriotic activity on the part of the teachers.

The sectional meetings of the institutes were directed in the main toward specific types of work, such as the teaching of English, reading, teaching of community civics, etc. Sufficient instructors were secured to insure that the groups of teachers should be small enough for individual discussion. Such meetings as these, as part of the work of the county institute, furnish the finest opportunity for teachers to exchange ideas, for the leading teachers of one community to give help to the teachers of another, and for the beginning teachers in all groups to get encouragement from those who have had more experience.

The State can well afford to emphasize teachers' institutes in all its counties. Such institutes furnish opportunities for the best leaders in educational thought to stimulate and encourage good work on the part of teachers in given counties.

SUPERVISORS' CONFERENCES

Three general conferences of the supervisors of the State were held during the year at Atlantic City, New Brunswick and Newark respectively. These two day conferences were open forums where the different superintendents of schools, supervising principals, and principals met together to discuss important present-day supervisory policies. At each conference about thirty men took part in the program. This program in the main consisted of group discussions illustrating the work that was being carried on in the different sections of the State. Such conferences as these are essential steps in securing State-wide excellence in schoolroom supervision.

COURSES IN SUPERVISION AT OCEAN CITY

As a part of my work as Assistant Commissioner of Education, I conducted a two weeks' conference for superintendents and supervisors at the Ocean City Summer School. The work of this course took up practical questions that confront supervisors from day to day. The work was carried on daily as a two-hour conference where groups of supervisors reported from day to day

upon special questions which had been assigned them for discussion. Detailed policies in supervision were worked out. In this way these conferences gave a valuable contribution to both teaching and supervision.

GROWTH IN UNITING THE WORK OF COMMUNITIES AND SCHOOLS ; PUPIL LEADERSHIP

The time has come in New Jersey when one can say that the work of the rural and small town school is closely connected with the work of the community as a whole. For several years it has been the policy of the Department to indicate to supervisors that one of their functions was to be a community worker, a community organizer and community booster. Sufficient progress has been made to show clearly that excellent work has been accomplished in this respect.

In rural schools where supervision is under the direction of the "helping teachers" there are now in New Jersey more than 200 parent-teacher associations. During the school year 1918-19 over 60 such organizations were perfected. In the rural and small town communities 130 community festival days were held. There were in attendance at these festivals more than 33,000 people. These people were there to see the work of the schools and the work of the communities united. They observed the work of the boys and girls and teachers; they participated in the singing, and in many instances they took part in games and athletic contests. These were really community awakenings where the adult members and the children worked together. At these exercises approximately 20,000 children took part.

This indicates in brief the importance that ought to be attached to such community gatherings. They are a part of the regular educational program. When the fathers and mothers participate in these community festival days they are, in a sense, enrolling themselves as members of the school. It is through such activities as these that the schools of to-morrow will do a better type of work.

The supervisors and teachers of the State for several years have emphasized pupil leadership throughout the elementary schools. This has been done with such success that during the past year great progress was made in teaching boys and girls to assume leadership for certain classroom activities, certain playground work, and home and community projects. This is evidence of a new type of school supervision and school teaching. It cannot be praised too highly, for it is through such work as this that the public schools are building for a suitable and orderly democratic form of government.

In the judgment of the helping teachers as many as 1600 boys and girls in the rural sections had opportunity to develop leadership in some form of pupil and teacher cooperation. This speaks well for the work of the rural schools. If data were obtainable for the entire State there is no doubt but that the town and city schools would show an increasingly large number in proportion to this shown in the rural schools.

TYPE OF TEACHERS MEETINGS

The wide-awake teachers meeting is an essential part of the present day school program. Such progress has been made in New Jersey in teachers

meetings that it should be mentioned as a worth-while contribution to education. The best practice now throughout the State in a progressive teachers meeting is one in which the supervisor and teachers work out certain problems or projects upon which they wish to center attention. From these projects definite yearly programs are mapped out. Supervisors and teachers center attention and discussion around these projects. When the meetings are held the teachers take a prominent part in the discussion. The supervisor is the leader of the discussion.

After sufficient progress has been made in this respect, some of the best teachers of the system illustrate through demonstration teaching how the projects are to be further developed and carried out. At the close of the demonstration teaching the teacher who taught the work becomes the class leader. The observing teachers enter into the discussion, illustrating how they may find profit from the work which they have observed. The good work which they saw demonstrated is carried back to their own classrooms.

As a part of the plan, opportunities are provided by which these teachers report back, indicating how they have made use of the good points which they saw worked out in classroom demonstration.

This indicates worth-while progress in teachers meetings. When such meetings become the common practice over the State, supervision and teaching will be working to the best interests of the boys and girls of the State.

SURVEYS

During the year, in cooperation with Dr. A. B. Meredith, in charge of Secondary Education, at the request of boards of education, surveys were made of certain school systems in New Jersey. These surveys were worked out with much care, and complete reports, either oral or written, were made to the local boards of education.

MONOGRAPH ON SPECIAL DAYS AND OPENING EXERCISES

During the present school year my department prepared for the elementary schools a monograph on "Special Days and Their Observance." This monograph was worked out through committees of various superintendents, supervisors and teachers in the State. It furnishes to all teachers of the State definite programs for the observance of all the special days, together with sufficient material for the carrying out of the programs suggested.

It is very fitting at this time that the State Department should have for the use of the teachers such a pamphlet. Its purpose is to illustrate how, by honoring our great heroes and leaders, we may become more useful American citizens.

The boys and girls of public schools who take part in celebrating national holidays in this patriotic way will be learning how to carry out American ideals and traditions.

During the opening exercise periods the boys and girls of our public schools should have an enjoyable time. They should be the ones who have a large part in the conducting of such exercises.

SERVICES OF THE HELPING TEACHERS

During the school year 1916-17 the helping teacher position was created. Since that time 28 well qualified young women have been appointed to this position. For three years I have given general directions to the work of these helping teachers, organizing and directing in terms of the needs of the counties in which they worked. These helping teachers, in cooperation with the county superintendents, have made an unusual progress in rural schoolroom supervision. They have improved the type of teaching in their schools; for example, in reading, arithmetic, English, etc. They have improved the housekeeping of such schools; they have been instruments in stimulating teachers to take more active interest in boys and girls in the schools; they have been active forces connecting the work of the schools and the communities; they have assisted in conducting parent-teachers associations; they have conducted stimulating worth-while teachers meetings; they have encouraged boards of education to increase salaries of local teachers; they have met with different community organizations in the communities and have encouraged more interest in school activities; they have stood for a type of active, patriotic endeavor in their communities, tying up the work of the schools with all war activities that could be brought into the schools. In short, these women have done a superior piece of work in schoolroom supervision and in community cooperation and endeavor.

The State should realize fully the responsible work which these women have done. I hope that this coming Legislature will make it possible for them to receive a substantial increase. The helping teachers now employed are women of superior ability and training. The State should help such women who are supervising the work of the rural and small town schools.

CONSOLIDATION

The consolidation of rural elementary schools has been an important problem in New Jersey for several years. The monograph prepared in 1915 by Dr. Savitz, former Assistant Commissioner, was a great stimulus in encouraging this movement.

There is a constant growth in the spirit of consolidation throughout the State. There are fewer one and two room schools each year, and there are fewer children attending these schools. In many instances the one and two room schools of different districts have been consolidated into buildings of six or eight rooms. These buildings have truly become community centers for the fathers and mothers and the boys and girls of the neighborhood. In the school year 1916-17 there were 1,494 children enrolled in one room country schools. In 1918-19 there were 18,577 children enrolled in one room country schools. This shows that 2817 fewer children were enrolled in 1918-19 than in 1916-17. In other words there were fewer children by 4 per cent. in one room country schools in a period of two years. In 1916-17 there were 15,207 children enrolled in two room rural schools. In the year 1918-19 there were 14,231 children enrolled in two room rural schools. There were therefore 976 fewer children enrolled in two room rural schools in 1918-19 than in 1916-17. In terms of per cent., the enrollment in two room rural schools has decreased 2 per cent. within two years.

In practically all cases where consolidation has taken place it has meant greater opportunities for boys and girls of the communities. Changes in school policies which result in betterment for the boys and girls of the community are always important changes to make.

In submitting this report I wish to acknowledge the excellent cooperation of all members of the Department, County Superintendents, Supervisors and Teachers throughout the state.

May I also express my deep appreciation for the great privilege which I have had in serving under your stimulating leadership for the four years in which I have been Assistant Commissioner of Education.

SECONDARY OR HIGH SCHOOL EDUCATION

PREPARED BY

ALBERT B. MEREDITH

Assistant Commissioner in charge of Secondary Education

In compliance with your request I respectfully submit the following report for the year ending June 30, 1919. Detailed reports from each school are on file and it is from these reports that the statistics have been compiled.

TABLE I

COMPARATIVE STATISTICS OF TOTALS

	1915	1916	1917	1918	1919	Incr.	Decr.
Approved four year high schools	133	136	136	137	138	1	0
Registered three year high schools	14	11	10	11	11	0	0
Registered two year high schools	7	7	9	9	8	0	1
Registered one year high schools	2	2	2	2	1	0	1
Total registration in high schools	44,814	50,030	50,726	51,048	51,379	331	0
Pupils attending high schools in adjoining districts.....	7,678	9,088	9,200	9,020	9,270	250	0
Total enrollment of State..	519,880	540,287	544,281	561,825	571,434	9,609	0
High school teachers							
Men	619	714	733	714	698	10	16
Women	1,035	1,138	1,195	1,295	1,379	84	0
	1,654	1,852	1,928	2,009	2,077	94	16

Notes and comments based upon the above data:

1. The number of four year schools has increased by one, the high school at Fort Lee having been transferred from the list of the three year schools.
2. West New York has been taken from the two year group and added to that for three years.
3. The one year of high school work previously done at Greenwich, Cumberland County, has been discontinued, and the pupils now attend the Bridgeton high school.
4. The increase in total registration for the past year in the high schools has been 331, or .66 per cent., and for the two previous years .63 per cent. and 1.39 per cent. respectively. The increase in the total enrollment of elementary and high schools has been 1.71 per cent., almost three times as great as that of the high schools included in the total enrollment. War and industrial conditions have more seriously affected the high schools. Convincing

evidence is available to show that next year the high schools will again resume their normal growth.

5. The enrollment of the high schools is 48,199, while the total registration is 51,379, the difference, 3,180, representing pupils who were enrolled in the eighth grade in September and admitted to the high schools in February, 1919.

6. The difference of 1271 between the registration of the twelfth grade and the number of graduates is due in part to the number of pupils who left school during that year, and in part to the fact that a number entered the grade in February, 1919, to be graduated in the middle of 1919-20.

7. Two hundred and fifty more pupils than last year attended school outside their home districts.

8. The number of male teachers has decreased by 16, and the number of women teachers has increased by 84, giving a net gain of 68, or 3.3 per cent.—a greater gain than in the registration of the pupils.

9. The aggregate salaries of men and women teachers, exclusive of principals, was \$1,284,949.23 and \$1,666,699.64 respectively, based upon a total of 674 men and 1373 women. In comparison with the aggregate of last year, the increase is \$52,239.23 for men and \$165,113.50 for women. The average salary for men during the past year was \$1906.45, and for women \$1213.91, the increase being \$182.38 and \$104.91 for men and women respectively. In many districts the increases were given as bonuses and later legalized as salary increases. Even with these increases the salaries of teachers remain on a low plane in comparison with the character of their work, and in comparison with the compensation paid in industry and in other professions demanding comparable skill and personality.

TABLE II

TOTAL ENROLLMENT BY CLASSES OF SCHOOLS

<i>Grade IX</i>					
	1915	1916	1917	1918	1919
Four year schools	19,259	22,569	22,255	21,271	22,024
Three year schools	256	163	196	184	216
Two year schools	187	161	193	159	276
One year schools	6	7	57	150	30
Total	19,708	22,900	22,701	21,764	22,556
<i>Grade X</i>					
	1915	1916	1917	1918	1919
Four year schools	10,782	12,524	12,731	13,263	12,827
Three year schools	166	107	118	120	125
Two year schools	106	91	97	14	156
One year schools	3	0	0	0	0
Total	11,057	12,722	12,946	13,497	13,118
<i>Grade XI</i>					
	1915	1916	1917	1918	1919
Four year schools	7,374	8,013	8,476	8,787	8,648
Three year schools	124	59	91	78	93
Two year schools	12	0	10	0	0
One year schools	1	0	0	0	0
Total	7,511	8,072	8,577	8,865	8,739

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Grade XII					
	1915	1916	1917	1918	1919
Four year schools	6,038	6,336	6,409	6,922	6,956
Three year schools	0	0	P. G. 93	0	0
Two year schools	0	0	0	0	0
One year schools	0	0	0	0	0
Total	6,038	6,336	6,502	6,922	6,956
Grand total	44,814	50,080	50,726	51,048	51,379

The above table shows the distribution of pupils in the several classes of schools for the past five years. With practically the same total enrollment as last year, the total number of pupils in the ninth grade has increased by 764, showing that more pupils are entering the high schools; and it is elsewhere shown that the percentage of total high school enrollment found in the ninth grade is greater than last year, when there was a perceptible drop in comparison with the year 1916-17. The increase noted above means that four years hence more pupils will be graduated and a larger number than recently will be found in the entering classes of the normal schools, and also among those who enter the teaching profession by way of the summer schools.

TABLE III
PERSISTENCE OF CLASSES OF 1918 AND 1919 COMPARED

	Enrollment	Per cent (1919)	Per cent (1918)
1916, Grade IX	22,900	100	100
1917, Grade X	12,946	56.5	64.5
1918, Grade XI	8,865	38.7	43.5
1919, Grade XII	6,956	30.1	35.1

TABLE IV
PERCENTAGE OF ENROLLMENT BY GRADES

	1915	1916	1917	1918	1919
Grade IX	44.4	45.75	44.7	42.6	43.87
Grade X	24.9	25.42	25.5	26.4	25.57
Grade XI	16.7	16.13	17.0	17.3	17.01
Grade XII	13.5	14.00	12.8	12.8	13.54

The holding power of the high school is shown by a consideration of the above tables. In Table III it appears that in comparison with the class of 1918, fewer pupils of those who entered remained to be graduated, and that there was a greater dropping out during the course—a condition which was immediately influenced by the war and by the pandemic of influenza, which caused a protracted closing of the schools. Many pupils who were out during the period the schools were closed did not return. That the dropping out was evenly distributed among the grades may be seen in Table IV, where the percentage by grades remains practically constant.

TABLE V
ENROLLMENT BY COUNTIES OF HIGH SCHOOL BOYS

	1919	1918	Incr.	Decr.
Atlantic	718	769	51	0
Bergen	1,775	1,681	0	94
Burlington	398	413	15	0
Camden	892	891	0	1
Cape May	261	257	0	4
Cumberland	667	624	0	43
Essex	5,718	5,388	0	330
Gloucester	352	346	0	6

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Hudson	4,147	4,125	0	22
Hunterdon	274	257	0	17
Mercer	869	910	41	0
Middlesex	868	792	0	76
Monmouth	1,219	1,208	0	11
Morris	737	778	41	0
Ocean	292	291	0	1
Passaic	1,900	1,955	55	0
Salem	240	258	18	0
Somerset	367	399	32	0
Sussex	166	172	6	0
Union	1,584	1,647	63	0
Warren	383	391	8	0
Total	23,827	23,552	330	605
Difference				275

From the above table it will be observed that the number of boys registered this year is less by 275 pupils than it was last year. The largest loss appears in the counties of Bergen, Essex and Middlesex. Eleven counties show a decrease and ten counties an increase in registration. The loss in Essex County was twice what it was during the previous year.

The number of boys in high schools has an important bearing upon the development of agricultural curricula. These curricula are new to the schools and with their expansion and successful operation it is anticipated that more boys will find school a profitable place in which to remain.

TABLE VI

DISTRIBUTION OF GRADUATES PROPOSING TO ENTER HIGHER INSTITUTIONS

	1914	1915	1916	1917	1919
Colleges	986	1,160	{ 1,144	1,080	1,399
Technical Schools			{ 222	202	544
Normal Schools	1,057	1,104	1,231	1,028	768
Law Schools	47	69	64	67	43
Medical Schools	32	42	54	37	51
Dental Schools	24	36	56	75	48
Other Higher Institutions.....	139	191	257	253	279
Total	2,285	2,602	3,028	2,742	3,132
Total Graduates	4,028	4,531	5,520	6,633	5,685
Percentage of graduates proposing to go on for additional study..	56.7	57.4	54.8	43.3	55

This table indicates the intentions of high school graduates with regard to further study. Many of the graduates will defer entering higher institutions for a year or longer, so that there is no simple way of determining to what degree the intentions become facts. The purposes of 55 per cent. of those graduated in 1919 as compared with the 43.3 per cent. of 1917 suggests the increased pull of higher education now that the war is over. The most striking figures are those with regard to college and technical school entrance when compared with the figures indicating the number of those who propose to enter the normal schools. The figures are 1943 and 768 respectively. In 1917 the numbers were more nearly equal. It is evident that teaching does not appeal to an increasing number of high school graduates, and this is without doubt due to the poor remuneration given to this profession, as previously suggested. During the year definite efforts have been made to interest high school pupils in teaching by pointing out, among other things, its possibilities for patriotic service. Talks have been given to schools, and groups

of seniors have been conferred with in different parts of the state. It has been noted that in the summer school increasing numbers of high school graduates have appeared. With the larger salaries now paid, and with the minimum salary law operative, more pupils who look towards teaching may be expected.

SPECIAL STUDIES

The practice for the past five years has been to collect statistical data from only one or two fields of high school work, rather than compile tables annually showing the number of pupils studying each subject. This year mathematics, drawing and music were selected as of first interest, with German as secondary. The figures follow :

TABLE VII

NUMBER OF PUPILS STUDYING MATHEMATICS BY SEXES AND BY GRADES					
Grades	IX	X	XI	XII	Total
Algebra					17,917
Boys	7,180	756	1,355	493	
Girls	6,381	555	1,012	185	
Plane Geometry					8,173
Boys		3,567	614	119	
Girls		3,346	482	45	
Solid Geometry					1,487
Boys			369	821	
Girls			132	165	
Plane Trigonometry					1,606
Boys			460	903	
Girls			8	235	
Commercial Arithmetic					2,241
Boys	609	189	2	17	
Girls	1,125	276	5	18	
Total	15,295	8,689	4,439	3,001	31,424
Percentage of Grade Registration	67.9	66.3	50.8	44.8	61.2
Social Studies	38.2	33.9	44.8	87.0	44.8
Natural Science	47.6	30.7	60.3	56.0	46.7

The units of algebra usually taught are elementary algebra to quadratics, intermediate algebra, and, in a few schools, advanced or college algebra. The intermediate algebra is usually found in the third school year, with plane geometry in the second year. Some schools reverse the order. A few schools place intermediate algebra in the fourth year. In all but the commercial and in a few home arts curricula, algebra is a required subject. It also appears in some commercial curricula. The failures in first year algebra run high; although no statistics of failure are given here. The distribution of the other mathematics units is clearly shown in the table. In no school is solid geometry and plane trigonometry given more than half a year.

A comparison of the percentage of grade enrollment for mathematics, the social studies, and the natural sciences shows that mathematics leads in the first two years, since usually a year of algebra and plane geometry are required. In the other groups, social sciences and natural science, the requirements are made during the last two years. Because of the larger enrollment of the first two years, the percentage of total registration, 61.2, exceeds that of the other two groups.

The issuance in 1913 of Bulletin No. 2 of the High School Series, "The Teaching of Plane and Solid Geometry," has had a profound influence on the teaching of these subjects. Since that time many texts have been revised to conform with its recommendations.

Two years ago a committee of the Association of Mathematics Teachers of New Jersey presented a report on the "Teaching of Algebra," including a tentative syllabus covering two years of work. This report has been mimeographed and sent by this Department to each high school with the request that the syllabus form the basis of the courses in algebra, and that suggestions and criticisms be offered before the report is issued as a monograph of the High School Series.

The large number of failures led the committee to consider desirable omissions among the topics usually taught in first year algebra, and also certain minor phases of topics. Other features of the report are its suggestions for simplification, the stressing of fundamental topics, correlations with arithmetic and plane geometry, the use of the text, hints on lesson assignment, and suggestions for adapting the instruction to individual differences.

That the teacher may continue to be a student of the subject there has been added to the syllabus a list of helpful books on methods.

It is anticipated that a great improvement will result from the use of this report, which deals with a subject taken by 60 per cent. of the entering class.

By next year there should be ready a syllabus and a discussion of method relating to trigonometry.

The course in applied mathematics for girls, with special reference to the home arts curriculum, which was issued two years ago, has had a limited use, largely due to the conservative attitude taken toward the "project method" of teaching as applied to mathematics. The logical development of the usual mathematics units taught in high schools and the insistence upon these units by higher institutions make a strong appeal to the teachers.

TABLE VIII

NUMBER OF PUPILS BY SEXES AND BY GRADES STUDYING MUSIC AND DRAWING

Grades	IX	X	XI	XII	Total
Drawing					9,253
Boys	1,911	533	227	112	2,783
Girls	3,560	1,597	637	637	6,470
	<hr/> 5,471	<hr/> 2,130	<hr/> 903	<hr/> 749	
Per cent of grade registration....	24.2	16.2	10.3	10.7	18
Music					6,134
Boys	1,695	552	529	214	2,990
Girls	1,391	753	542	458	3,144
	<hr/> 3,086	<hr/> 1,305	<hr/> 1,071	<hr/> 672	
Per cent of grade registration....	13.6	9.9	12.2	9.6	11.9

Comparatively few schools offer a course in drawing extending over the four years, although many schools had begun to do so both in drawing and in music in preparation for admission to the normal schools, when that requirement was rescinded.

Two units of drawing are usually offered, each requiring a double period and open to all pupils for two years. The courses are in free hand work and applied design. There is no uniformity throughout the state in either drawing or music.

It is interesting to note that 18 per cent of the total enrollment are studying drawing, and approximately 12 per cent. are studying music.

In music much chorus singing is given and in addition many courses in technical music, music appreciation, and in the history of music. Many schools have organized school orchestras and glee clubs of boys and girls. The esthetic value of drawing and its practical application in the industrial arts and in the home warrant more attention to this subject, but its fullest development and that of music cannot be had without competent state supervision and direction.

With the increased attention being given to community singing, music will grow in popularity and usefulness. I respectfully recommend the consideration of the practicability of a State Supervisor of these significant activities.

GERMAN

For the year ending June 30, 1917, statistics were gathered which showed by grades and sexes the number of pupils studying German. During the year 1918-19, because of the action of the State Board of Education, and also independently, many boards of education ordered German from the high school programs of study and permitted no new classes to be organized. Other boards did not so act, with the result as shown by the following table:

TABLE IX

TABLE SHOWING THE NUMBER OF PUPILS STUDYING GERMAN BY SEXES AND BY GRADES

	30 Schools			
	1916-17		1918-19	
	Boys	Girls	Boys	Girls
Grade IX	1832	2036		
Grade X	3234	3783	166	204
Grade XI	1746	2300	254	222
Grade XII	858	1190	174	174
	16,939		1,207	

The drop has been from 16,939 pupils to 1207 pupils, or from 33.3 per cent. of the total registration to 2.3 per cent. The attitude of the public mind with respect to the study of German is indicated in very convincing terms. On the other hand, the popularity of both French and Spanish is increasing.

HIGH SCHOOL CONFERENCE

Two years ago it was found that 71 per cent. of the high school teachers of the state had been trained outside of New Jersey, and as a result had no intimate touch with the public school system, and that of the remaining 26 per cent. who had received their elementary or high school education in the state, all but 3 per cent. had gone outside of New Jersey for their college and professional education. Further, it was shown that the tenure of high school teachers was short.

High School Playground—Town of Union

School Number 3 Playground—Town of Union

Middle Township High School—Cape May Court House



The difficulty of maintaining for the state as a whole a strong professional spirit among high school teachers and of securing a unity of effort in adapting secondary education to the needs of the state under such conditions as those cited above is apparent.

For the purpose of unifying high school sentiment, of promoting organized effort, of making investigations, of stating problems, of testing results, and for the continued training of high school teachers in service, and to articulate the high school interests of the state with the State University, a high school conference was held on November 22 and 23, 1918, at the State University of New Jersey, New Brunswick.

The plan was not to form a new organization but to bring together for a common purpose the various associations of high school teachers and to organize new conference groups.

The administration of the conference is in the hands of this Department in cooperation with the University.

The first conference was in every way a success. Over 625 were registered at headquarters, and more than 300 attended the dinner on Friday evening. Every section of the conference was crowded at all sessions, and in several instances larger quarters had to be sought.

The conference began on Friday with a discussion of educational measurements under the direction of the Department of Education of the University, with Mr. Stewart A. Courtis as the speaker both Friday afternoon and Saturday morning. His talks were on "Problems of Measurement as Applied to Reading, Composition and Spelling," and "Measurements as an Aid to Teaching." Both talks made a strong impression upon superintendents and principals. The conference on measurements is the second conference of this kind to be held by the Educational Department of the State University.

The Commissioner of Education presided at the dinner given at the quarters of the Student Army Training Corps, Winants Hall, and the affair proved to be one of the most enjoyable get-together phases of the conference. The after-dinner speakers were President Demarest, Dr. Henry Snyder, and the Assistant Commissioner in charge of Secondary Schools.

The evening session was in charge of the High School Teachers Association and the first address was by the Honorable P. W. Wilson, a member of the British Parliament, who spoke on "What the War Has Done Educationally." The second speaker was Professor W. H. Schofield of Harvard, Secretary of the American Council of Education. His subject was "Education After the War."

On Saturday the following associations gave their regular programs as part of the general conference: New Jersey Mathematics Teachers' Association, Association of Modern Language Teachers, High School Commercial Teachers' Association, Association of Teachers of English, New Jersey Science Teachers' Association, Teachers of Classical Studies, Teachers of the Social Studies, and Teachers of Public Speaking. At each of the meetings practical discussions were held bearing upon the question of method and content in the respective fields represented.

The feeling of the conference seemed to be that desirable modifications in purpose and subject matter will need to be made in many of the high

school subjects, because of new situations arising as the result of the war, and all indications point to the fact that the associations will become more active working groups than has hitherto been the case. It is a significant fact that many superintendents and supervising principals were in attendance, thus showing their interest in secondary education. The full program is not given here as it is hoped that a volume of proceedings may later be published.

The plan of the conference was first presented by the writer of this report in 1915 to the High School Principals' Round Table, and it was later presented to each of the associations for consideration. One or two tentative dates for the conference were set but it was not until 1918 that plans could be perfected. In the meantime the Education Department of Rutgers College held its first conference for school administrators on educational measurements under the direction of Dr. C. H. Elliott. It was then planned to unite this group with the various associations dealing with secondary education, and the facilities of the State University were offered.

It was the expressed desire of those in attendance that the conference be continued, and the prospects are good for an attendance of a thousand or more high school teachers next year. Plans are now being made for next year's program, which will include problems of measurement, an attempt to reorganize the content of various high school units and to interrelate various subjects, such as English and history, mathematics and science, etc. Much may be expected from this renewed interest in secondary school problems, and the conference will come to be the leading meeting of the year.

NEWARK JUNIOR COLLEGE

A significant extension of the field of secondary education was the establishment at Newark, in the South Side High School, of a Junior College, to include the freshman and sophomore years of a regular college course. This college was authorized by the Newark Board of Education on August 29, 1918, and opened early in September with 97 students and a faculty of 9 instructors, most of whom also taught some high school classes. The organization of the College, however, is distinct from that of the high school, the classes meeting in a separate part of the building and the time schedule providing for recitation periods a full hour in length.

Adequate laboratory and library facilities have been provided. Pupils who have been graduated from an approved four year high school course or have received an equivalent education are admitted twice a year. The College offers five curricula, each covering two years of work and articulating with neighboring universities and colleges, as well as with professional schools of medicine, business and finance, and journalism.

Tentative rules governing the approval of junior colleges have been prepared, but no action has yet been taken by the State Board of Education. In September, 1919, the College will operate the second year of the program.

Through this college many young people of Newark and vicinity will have an opportunity to get two years of college training, and at the same time be in a better position to choose wisely a college for the remainder of their courses. The development of the Junior College at Newark will be watched

with interest by the other large cities, and much credit should be given to the educational authorities of that city for this progressive movement.

INTERMEDIATE SCHOOLS

During the past year an intermediate school at Red Bank has been approved. The present list includes Trenton, Montclair, Red Bank, South Amboy. Newark also has several intermediate schools which are not officially recognized, but this is solely because of the financial disadvantage to the district to have such recognition. The last year of the intermediate schools in that city is regarded as an annex of the four year high school near which it is located. Actually, the three years represented by grades VII to IX inclusive form a single administrative unit.

Since 1912 the advantages of the intermediate school have been discussed in annual reports and in addresses, so that the reasons for this type of organization are pretty widely understood. It has been the policy of this Department, however, not to unduly push this particular reorganization, but rather to encourage the development of several distinct types of schools, so that the advantages of each may be appreciated; and before urging a wider adoption of the plan, to build up a body of experience under New Jersey conditions that may be helpful to school officials.

The following adaptations of the plan may be distinguished:

The detached intermediate school—Trenton;

The intermediate school associated in the same building with elementary grades—Newark and Red Bank;

The intermediate school in the same building as the senior high school—Montclair and South Amboy.

Both large and small communities are represented. In a number of new high school buildings provision has been made for including the seventh and eighth grades, and ultimately the six year high school plan will prevail. In some districts the work of the seventh and eighth grades has been departmentalized and some differentiation among subjects has been begun. This is the first step toward the six year high school.

AGRICULTURE IN THE HIGH SCHOOLS

Much interest has been shown by school boards in rural communities in the plan for the establishment of an agricultural curriculum extending over four years. Such curricula are now in operation in twelve districts; viz., Newton, Hackettstown, Belvidere, Washington, Flemington, Hopewell, Bridgeton, Shiloh, Freehold, Salem, Woodstown and Leonardo. About 225 boys are now enrolled.

The work consists of classroom recitation and demonstration, laboratory exercises and field trips, and in addition each boy is required to carry on some practical farm enterprise or project on the home acres. The teacher of agriculture, employed for the full year, assists the pupil in the various stages of his home work, all of which is definitely related to his class room activities.

The expense to the district for the establishment of these curricula is comparatively low, since the federal aid and the state aid together form approx-

imately three-fourths of the salary of the teacher of agriculture, one-half the cost of the initial equipment for the department, and one-half the annual expense.

The immediate supervising of the work in agriculture devolves upon the State Specialist in Agriculture, Mr. H. O. Sampson.

For the present there are enough schools with agricultural curricula to offer a basis for experimentation and observation, and this work will be watched with interest. Within a year or two it is hoped that a somewhat similar plan will be adopted for the home education of girls in both rural and urban high schools.

SCHOOL VISITATION

Owing to the closing of many schools, in some cases for a period of six weeks on account of the pandemic of influenza, not as many districts were visited early in the school year as previously. As one result of visits some 48 schools made important revisions of their curricula, which were approved by the State Board of Education.

In visiting schools two phases of the visitor's work that stand out most prominently are the inspectorial and the supervisory. First—mere inspection of the physical conditions of the school, checking up the administration in relation to the rules governing approval, noting whether or not the teachers are legally qualified for the work assigned to them, examining curricula—all of which items while valuable and necessary are not matters of first importance. These things minister to the real business of the school, which is that of teaching young people through the activities of the classroom, and through the utilization of the life of the school itself. The supervisory function is concerned with the professional side of school work, and is carried on primarily through personal contact with schools, but also in part by the preparation of monographs; by bulletins, addresses, institutes; by correspondence with school officials; and by conferences with teachers and the public for the purpose of making clear public school policies, defining attainable objectives, and suggesting methods of better teaching and more comprehensive local supervisory policies.

In a previous report I indicated some of the criteria used in judging the quality of classroom instruction, not all of which are applicable to each recitation, since the nature of the subject matter differs so widely, e. g., type-writing and Vergil. Below are indicated some of the matters considered in forming judgments regarding the effectiveness of the school as a unit and the way in which the organization of pupils and teachers assists in reaching desirable ends. These factors are presented without discussion. Further, these elements are not to be found in the rules for approval, but are nevertheless most significant in relation to the efficiency of the secondary school in a democracy, by which term is meant such an organization as shall serve impartially the interests of all who participate therein.

A visitor studying the life of the school would ask himself some such questions as the following, each of which suggests its own answer:

Are there evidences of "school spirit," through the recognition and apprecia-

tion by all of that which the school holds the highest—e. g., scholarship, social efficiency, athletics, civic responsibility, etc.?

What is done to cultivate such a spirit?

Is the school considered as a mere aggregate of classes, or does it have an organic unity, a consciousness; and in the development of this state, is there some delegation of duties and responsibilities regarding the management of the school which involve in some way every teacher?

Are the principles of scientific management applied to the mechanical and routine processes of the school so that a minimum of time and effort is given to the mere running of the school?

To what extent are the social interests of pupils directed into helpful channels and the life of the school capitalized for social ends?

Are both principal and teachers constantly studying curricula problems and organizing curricula and subject matter for recognizable groups of pupils; e. g., those looking toward higher institutions, business, the home and industry?

To further this end has the school organized definite agencies for educational and vocational guidance?

Is the school operating programs for better health through physical education, including hygiene, and also for intelligent participation in the civic activities of the community and the nation? Are these subjects being given the major emphasis and attention?

What plans are being carried out for the training of teachers in service, and especially teachers new to the school and the state?

Has the school a definite policy for the supervision of instruction, either by the principal or by departmental heads?

Are the courses of the school organized in such a way as to indicate definite lines of difficulty, and are quantitative measures being applied to the different phases of subject matter capable of such measurement?

Do the descriptions of the various units of work contain suggestions for correlation with other subjects?

Is the athletic program of the school under the control of a faculty adviser?

Are the library facilities of the school adequate to the needs of the various departments?

Such questions, while by no means exhaustive, touch upon important matters of school management and the life of the school. Frequently at the close of the day these topics are the basis of round table discussions. It should be said that in many schools these questions serve merely as a check list of practices already followed.

GENERAL

Note should be made of the fact that early in September the New Jersey College for Women was opened at New Brunswick with an entering class of over 50 students, representing some 30 high schools.

The opening of this opportunity for the higher education of women is most significant in relation to the preparation within the state of teachers for the high schools of New Jersey.

For the third year a scholarship covering the tuition for four years in the Colorado School of Mines has been awarded to a graduate of a New Jersey high school. The previous appointments were Justin Shearn, of Roselle Park, and Bryant Rogers, of Montclair. The scholarship this year was awarded to Halliday McKay, of the Plainfield high school.

Summer sessions of the high school were conducted at Elizabeth and Vineland for the first time. The other sessions are at Newark and Trenton. While most of the pupils attend to make up conditions still many are able to gain time toward the securing of a diploma of graduation. The next logical step is to organize the year into four terms of twelve weeks each, and thus offer an opportunity for many pupils in large districts to complete four years of work in three or three and one-half years.

The prospects for next year are in the direction of a large high school enrollment, and with the return to teaching of many men who have been in the service, a renewed vitality in our schools is assured. Life to many will have a new significance and the schools will profit by the war.

The schools are realizing more fully their responsibility in training young people for efficient service, and it is a privilege to be associated in the enterprise.

REPORT
ON
INDUSTRIAL AND AGRICULTURAL EDUCATION
By

WESLEY A. O'LEARY

*Assistant Commissioner in charge of Industrial Education including
Agriculture*

(PRINTED AS A SEPARATE DOCUMENT)

THE THIRTY-FIVE YEAR PENSION LAW DECISIONS

PREPARED BY

JOHN ENRIGHT

Assistant Commissioner in charge of Controversies and Disputes

THIRTY-FIVE YEAR PENSION LAW

The State Pension Law requires a certification to the Comptroller in February of each year of the amount of money necessary for the payment of pensions during the ensuing year, beginning July 1, following the date of certification.

In pursuance of this law there was certified by the Commissioner of Education to the Comptroller in February, 1918, the sum of \$250,000 to be used for the payment of pensions. Of this amount there was paid to pensioners the sum of \$248,956.63.

The number of pensions certified during the school year ending June 30, 1919, was 47. Of these, 11 were men and 36 were women.

The total annual pension of these 47 amounts to \$29,037.55.

The highest number of years of service in teaching by any one teacher was 47 years.

The average length of service of all the teachers retired during the year was 37.5 years.

Of the 47, 25 were between the ages of 53 and 59, 17 between the ages of 60 and 69, and 5 between the ages of 70 and 78.

There were 13 deaths during the year, which left the total number of pensioners at the close of the year 452. Of these, 74 were men and 378 were women.

Of the deaths, 4 were men and 9 were women.

The average annual pension of the 11 men retired is \$819.89.

The average annual pension of the 36 women is \$556.08.

The Thirty-Five Year Pension Law was repealed at the legislative session of 1919. The repealer is to take effect September 1, 1919.

The new Pension and Annuity Law approved April 10, 1919, is to go into full effect on September, 1919, and will take the place of the old Thirty-five Year Pension Law.

All rights and benefits which had accrued to teachers who were in service when the new law went into effect are preserved in the new pension law.

The new State Pension Law modifies to some extent the old law by regard-

ing only years of service and permitting retirement from superannuation at age 62.

The amount of pension provided under the new law depends upon the number of years of service and the average salary paid to teachers during the last five years of service. The new law also provides a pension for physical disability.

DECISIONS

Following are some of the decisions rendered from December, 1918, to August, 1919:

NECESSITY FOR TRANSPORTATION OF CHILDREN

AUGUSTUS N. DRAKE

Appellant

vs.

BOARD OF EDUCATION OF EWING
TOWNSHIP, MERCER COUNTY

Respondent

DECISION OF THE
COMMISSIONER OF EDUCATION

JOHN A. MONTGOMERY, for the Appellant.

H. C. SCUDDER, for the Respondent.

The Appellant in this case demands transportation for his children to the Lanning School in Ewing Township. He says that he resides slightly over a mile from the Lanning School; that in former years the transportation wagon which goes by his place of residence provided transportation for his children.

The Appellant also claims that in the month of June, 1918, the Board of Education of Ewing Township gave a contract to Elwood Hendrickson to use the same wagon that had been formerly used and increased his pay from \$3.50 to \$4 a day; that this contract was illegal for the reason that 48 children could be transported by the Trenton and Mercer County Traction Company for a sum equal to \$4 each day, the same as paid to the said Hendrickson for wagon transportation. The Appellant further claims that the contract awarded to Hendrickson was not awarded to the lowest bidder as required by law.

To these points in the petition the Board of Education replies that it is not bound to furnish transportation to Mr. Drake's children because he does not live remote from the school in the meaning of the law, and further, that the Board of Education on November 12, 1917, adopted the following regulation regarding the transportation of children:

"That hereafter we do not transport children living within a mile and a quarter of the school to which they are assigned, except in cases where

wagons are not filled. Children living a shorter distance may be transported to the capacity of the wagon, preference being given to small children and those farthest from the school, such children to be designated by the Supervising Principal, and wagons to be rated by the County Superintendent for capacity."

The Hendrickson wagon has been rated for transportation by the County Superintendent, giving 32 as the maximum to be carried. The Board of Education claims that the wagon used is sufficient only to carry those pupils who live more than a mile and a quarter from the school building. Under the rating of the County Superintendent the wagon is not of sufficient capacity to carry the children of Mr. Drake.

The question to be considered then is, does Mr. Drake live at a distance from the school which justifies transportation? I find that under Mr. Drake's own admission, living as he says slightly over a mile from the school, his residence should not be considered sufficiently remote from the school to warrant furnishing free transportation.

Second, the question is raised as to the legality of the contract. The Board of Education has full power to make a contract in all school districts, acting under Article VII, without advertising. In this case there was no advertisement for bids and the Board made a contract, which it had full power to do, with Mr. Hendrickson for the transportation of a given number of children. As to the method of transportation, whether by wagon or trolley, the Board of Education has full authority to determine which it shall be, provided the County Superintendent approve the method, the cost and the necessity for the transportation. In this case the County Superintendent has approved the necessity for transportation, the cost and the method for all children who live a mile and a quarter, or more, from the school. He does not approve of the necessity for transportation of Mr. Drake's children because he lives only about a mile from the school.

The claim of Mr. Drake for transportation because he lives remote from the school I find not to be reasonable and, therefore, his petition asking for transportation of his children to the Lanning School is hereby dismissed.

December 3, 1918.

DUTY OF BOARD OF COMMISSIONERS TO RAISE MONEY
AUTHORIZED BY BOARD OF SCHOOL ESTIMATE

BOARD OF EDUCATION OF THE CITY OF
BAYONNE

Appellant

vs.

BOARD OF COMMISSIONERS OF THE CITY
OF BAYONNE

Respondent

DECISION OF THE
COMMISSIONER OF EDUCATION

This appeal is taken by the Board of Education of the City of Bayonne because of refusal of the Commissioners of the City of Bayonne to proceed

to raise, either by tax or the issue of bonds, certain amounts of money fixed and determined by the Board of Estimate for the purchase of certain lots of land to be used for school purposes.

The petition of appeal sets forth that the Board of Education regularly proceeded to request the Board of Estimate to determine the necessary amount for the purchase of the lots described. The Board of Estimate met and regularly proceeded to fix the amount requested by the Board of Education. The Board of Estimate certified, as provided by law, to the Commissioners of the City of Bayonne the amount determined by it.

The case was submitted by Counsel of the Board of Education on petition of appeal. Answer was filed by counsel for the Respondent. The Counsel for the City admits the regularity of the proceedings. He contends however that it is discretionary and not mandatory upon the Board of Commissioners to make the appropriation.

Section 76 of the School Law provides that, "Whenever a city board of education shall decide that it is necessary to raise money for the purchase of lands for school purposes . . . it shall prepare and deliver to each member of the board of school estimate of such school district a statement of the amount of money estimated to be necessary for such purpose or purposes; said board of school estimate shall fix and determine the amount necessary . . . and shall make two certificates of such amount, one of which certificates shall be delivered to said board of education, and the other to the common council, board of finance or other body in the city having the power to make appropriations of money raised by tax in such city."

It is understood by both parties in this case that the procedure required in the law has been fully carried out. There is no dispute as to the facts. The point at issue is the language in the law following what has been quoted above, namely, "that the governing body may appropriate such sum or sums for such purpose or purposes," etc. "May appropriate" has been decided by the courts as meaning "must appropriate."

In the case of *Montclair vs. the State Superintendent*, 47 Vroom, 68, the Court held, "under section 76 of the school law, when the board of school estimate has fixed and determined the amount of money necessary for the purchase of land and erection of a schoolhouse it is mandatory upon the body having the power to make appropriations for money raised by tax to cause the amount to be raised by tax or to borrow the same and secure its repayment by the issue of bonds." The Supreme Court in the case of the Board of Education of the City of Lambertville vs the Common Council of the City of Lambertville held the same opinion. (90 Atlantic Reporter 242).

It thus plainly appears that the governing body of a city cannot under the law, nor the decisions of the Court, have any option in the matter of raising the amount of money fixed by the board of estimate. The raising of the money by tax or by the issuing of bonds is an administrative duty which cannot be evaded.

It is therefore hereby ordered that the Board of Commissioners of the City of Bayonne proceed at once to appropriate or place at the disposal of the Board of Education the amount of money ordered by the Board of School Estimate for the school purpose indicated in the resolutions of the Board of Education.

The appeal of the Board of Education of the City of Bayonne is hereby sustained.

March 19, 1919.

DISMISSAL OF TEACHER UNDER CONTRACT WITHOUT
CERTIFICATE

HERBERT L. WILBUR

Appellant

vs.

BOARD OF EDUCATION OF THE BOR-
OUGH OF LITTLE FERRY

Respondent

DECISION OF THE
COMMISSIONER OF EDUCATION

GEORGE H. RICHENAKER, for the Appellant.

CAMPBELL, DETURCK & WEST, for the Respondent.

The Appellant, Herbert L. Wilbur, in this case duly executed a contract with the Board of Education of the Borough of Little Ferry in the County of Bergen to supervise the schools of the Borough for the term of one year from the first day of October, 1918, at a salary of \$2000 a year. It was stipulated in the contract that the Appellant holds a valid certificate to teach issued in New Jersey in full force and effect at the time of the making of the contract. The contract also contained this clause: "It is hereby agreed that either party to this contract may at any time terminate said contract and the employment aforesaid by giving to the other party notice in writing of its election to so terminate the same." Mr. Wilbur entered upon his duties at Little Ferry and proceeded to perform them in accordance with the contract made with the Board.

The following notice was sent to Mr. Wilbur and he acknowledged receiving it:

LITTLE FERRY, N. J., Dec. 2, 1918.

Mr. H. L. Wilbur, Supervisor,
Little Ferry, N. J.

DEAR SIR:—At the meeting held this evening The Board of Education Borough of Little Ferry decided for the best interests of the schools to ask you to tender your resignation, the same to take effect December 31, 1918.

Very truly yours,

(Signed) LOFTUS V. BUNN,
District Clerk.

Mr. Wilbur did not resign as requested, hence notice was sent him on December 28 advising him as follows:

Herbert L. Wilbur, Supervisor,
Hackensack, N. J.

DEAR SIR:—Beg to advise that all property in your possession belonging to the School District, Borough of Little Ferry, N. J., be turned over to District Clerk, on or before Tuesday, December 31, 1918, by resolution of the Board of Education, Borough of Little Ferry.

Very truly yours,

(Signed) WILLIAM ZABRANSKY, JR.,
Pres.

On December 30, 1918, Mr. Wilbur was again notified to turn over the keys and other property belonging to the school. From this action of dismissal Mr. Wilbur made appeal to the Commissioner of Education and asked for a hearing, which was granted. This was held at Hackensack on March 12, 1919. At this hearing Mr. Wilbur was represented by counsel, as was the Board of Education. Mr. Wilbur testified to the facts as set forth above. He admitted receiving the notices asking for his resignation. He also admitted receiving the notice to turn over the keys and all the property belonging to the school. At the hearing Mr. Wilbur testified that he made diligent effort to get an endorsement of his New York certificate in New Jersey but had failed to do so. He was therefore without a New Jersey teacher's certificate in full force and effect. The question therefore involved in this case is, in accordance with the terms of the contract was the dismissal a lawful one? Inasmuch as both parties to the contract agreed to terminate the contract by giving to the other a reasonable notice I find that the terms of the contract were not violated. The Board of Education gave reasonable notice to Mr. Wilbur that his services would not be needed after the 31st day of December. Moreover, no contract made by a teacher with a board of education is valid unless such teacher is the holder of a teacher's certificate in full force and effect, and a board of education has the right to terminate a contract with a teacher when it ascertains that such teacher has not a teacher's certificate. The Appellant, therefore, being without a teacher's certificate under the law cannot claim that his dismissal was illegal. I find that the Board of Education under the terms of the contract gave reasonable notice to Mr. Wilbur and that his dismissal was in accordance with the terms of the contract.

The appeal is dismissed.

March 28, 1919.

POWER OF BOARD OF SCHOOL ESTIMATE TO RESCIND RESOLUTIONS

BOARD OF EDUCATION OF THE SCHOOL
DISTRICT OF WEST NEW YORK
Appellant

vs.

TOWN COUNCIL OF THE TOWN OF
WEST NEW YORK
Respondent

DECISION OF THE
COMMISSIONER OF EDUCATION

REINHOLD HEKELER, for the Appellant.

FRANCIS H. McCAULEY, for the Respondent.

On November 7, 1917, the Board of Education of the Town of West New York at a regular meeting adopted resolutions stating that greater school facilities were needed and asked the Board of School Estimate of the school district to determine the amount necessary for the purposes set forth in the resolutions of the Board of Education.

At a meeting of the Board of School Estimate held on the 12th day of November, 1917, the said Board voted by resolution the sum of \$250,000 for the erection and furnishing of a school building and the acquisition of the necessary land therefor. The Board of School Estimate in accordance with the law provided in such cases made the necessary certificates of the amount to be raised, one of which certificates was delivered to the Board of Education and the other to the Common Council.

The Town Council of the Town of West New York at a meeting on the 27th of November, 1917, adopted an ordinance according to law entitled, "An ordinance appropriating the sum of \$250,000 to erect, furnish and equip a new forty-one room, fireproof, three story and basement school building, etc."

The Board of Education according to its statement proceeded to have architects prepare working plans and specifications for the proposed new school building. About this time a request came from the Capital Issues Commission of the Second Federal Reserve Bank District asking that the building of schoolhouses should not proceed during the continuance of the war unless it was found to be absolutely necessary, in order that capital and labor might be conserved for the prosecution of the war. For this reason action was deferred in the raising of the necessary money for school purposes. Neither the Board of Education nor the Common Council pressed the matter of proceeding with the building of the school.

In March, 1919, the petitioner asserts that a demand was made of the Town Council to take the necessary steps to raise the amount of money fixed and determined by the Board of Estimate at its meeting on the 12th day of November, 1917. This the Town Council has not only refused to do, but has proceeded to rescind its former action taken to raise the \$250,000 required.

It is asserted by the petitioner further that the Board of School Estimate held a meeting on February 25, 1919, called at the request of three of its members. At this meeting of the Board of School Estimate resolutions were adopted reconsidering the former resolution that determined the amount of \$250,000 to be raised, and requested that the Board of Education furnish new estimates, and further requested the Town Council of the Town of West New York to rescind its action which provided an appropriation of \$250,000 originally.

The question involved in the case is, has a Board of School Estimate a legal right to take initiative action in rescinding any resolutions formerly adopted by it at the request of the Board of Education, fixing and determining the amount of money to be raised for school purposes? I am of the opinion that a Board of School Estimate cannot take the initiative in rescinding resolutions that have been adopted by it fixing and determining the amount of money to be raised for school purposes. There is no doubt that recision of action can be taken in the case of moneys ordered to be raised for given school purposes provided the initiative in the recision be taken by the Board of Education and, provided further, that the rights of third parties relating thereto have not become vested.

In this case the Board of Education has not taken the initiative in the matter of rescinding its former action. On the contrary it still holds to the original proposition. It also claims that certain rights of architects have

become vested and are based upon the fact that moneys have been voted by the Board of Estimate in a regular manner.

In the case of *Montclair vs State Superintendent*, 47 Vr. 68, the court expressed itself as follows:

"Under section 76 of the school law when the Board of School Estimate has fixed and determined the amount necessary for the purchase of land and erection of a schoolhouse, it is mandatory upon the body having the power to make appropriations of money raised by tax, to cause the amount to be raised by tax, or to borrow the same and secure its repayment by the issue of bonds."

It thus appears by court decision the Common Council or governing body of a city school district can take no initiative in the matter of raising money for school purposes, nor can it fix or determine the amount of money that should be raised, nor has it the power of determining the kind of school building, or selecting the lot on which the school building shall be erected. When a Board of School Estimate fixes and determines the amount of money necessary for school purposes the governing body of the city has no choice in the matter but to raise the money ordered in the manner provided by law.

I therefore find that the Board of Estimate is without legal foundation for holding the meeting called by three of its members in which the rescission of former action was taken.

I further find that it is the duty of the Town Council of the Town of West New York to proceed at once to raise the \$250,000 fixed and determined regularly by the Board of School Estimate at its meeting held on the 12th day of November, 1917.

May 31, 1919.

USE OF SCHOOL BUILDING FOR OTHER PURPOSES

JOHN PFAFFHAUSEN

Appellant

vs.

BOARD OF EDUCATION OF THE TOWN
OF UNION, COUNTY OF HUDSON

Respondent

DECISION OF THE
COMMISSIONER OF EDUCATION

I. G. KOVEN, for the Appellant.

FRANCIS H. McCAULEY, for the Respondent.

The petitioner, John Pfaffhausen, a resident of the town of Union, Hudson County, says that he is chairman of the Lecture Committee of a branch of the Socialist party of the Town of Union and as chairman of such committee and on behalf of his party he made application in writing to the Board of Education of the Town of Union for permission to use the auditorium of the high school on the evening of March 23, 1919. The purpose for which the school auditorium was to be used, as the petitioner states, was to have Scott Nearing deliver a lecture on a subject of an educational nature. The

Board of Education refused the use of the auditorium to the Appellant and because of such refusal the petitioner appeals to the Commissioner of Education for a reversal of the action of the Board and asks that the Board be ordered hereafter to grant permission to use the school auditorium to the Socialist party when properly applied for.

The law on which the appeal is taken is found in Chapter 35, P. L. 1917, and is as follows:

XI. (1). The board of education of any school district shall, subject to reasonable regulations to be adopted by said board, or upon notification by the Commissioner of Education, permit the use of any schoolhouse and rooms therein, and the grounds and other property of the district, when not in use for school purposes, for any of the following purposes:

(a) By persons assembling therein for the purpose of giving and receiving instruction in any branch of education, learning or the arts, including the science of agriculture, horticulture and floriculture;

(b) For public library purposes or as stations of public libraries;

(c) For holding social, civic and recreational meetings and entertainments and such other purposes as may be approved by the board of education;

(d) For meetings, entertainments, and occasions where admission fees are charged;

(e) For polling places, for holding elections, and for the registration of voters, and for holding political meetings.

It will be noted that the law specifically states the things for which a schoolhouse shall be used. First, for giving and receiving instruction in any branch of education, learning or the arts, including certain specific sciences, agriculture, horticulture, floriculture; (b) for library purposes; (c) for social, civic and recreational meetings and entertainments, and such other purposes as may be approved by the board of education; (d) justifying the charging of admission to meetings; (e) for polling places, elections, registration of voters and holding political meetings.

It is claimed by the petitioner that the law is mandatory in its application and that when any person or any political body such as the Socialist political party asks for permission to use the schoolhouse the board of education has no discretion in the matter but must forthwith grant the privilege to the person or body applying therefor.

A board of education holds in trust under the school laws of the state all school property. It is bound to make diligent inquiry as to the uses to which that property is to be put. If a school is desired to be used for lecture purposes a board of education has a right to inquire as to the character of the lecture and to see whether it comes under any of the specific things named in the statute. Moreover, the law says that a board of education may allow meetings to be held for "such other purposes" as may be approved by the board of education. This plainly implies the right to know something of the character of the lectures to be given in a schoolhouse.

The Appellant states that the use of the auditorium of the high school was asked in order that one Scott Nearing should deliver a lecture on a subject of an educational nature, but in his request he does not state the character of the lecture; he does not state what branch of education the lecture is to cover. This the board of education had a right to know.

It is my opinion that a board of education has in a large degree discretionary power in the matter of permitting the use of school property for other than the usual school purposes. It is my opinion that the Appellant has failed to show that there was any abuse of discretion in the refusal to permit the use of the school building to the Appellant for the purpose named in his request.

The appeal is hereby dismissed.

June 19, 1919.

TRANSFER OF TEACHER BY BOARD OF EDUCATION

JOAN SHRODER

Appellant

vs.

BOARD OF EDUCATION OF IRVINGTON

Respondent

DECISION OF THE
COMMISSIONER OF EDUCATION

The Appellant was a teacher in the third grade of the Augusta Street School in Irvington, in January, 1914, at the time of the opening of this school, and taught in the third grade for a period of one year, and was then assigned to the fifth grade and taught in grade work until September, 1916. The Appellant was then assigned to teach drawing and sewing in grades III to VIII. She held this position for a year, which made the whole length of time in this one school three and one-half years; and thus she came under the "Tenure of Service" act.

As teacher of drawing and sewing the Appellant continued until June, 1917. At this time the following notice was served upon her by the Superintendent of Schools:

"Unless you are notified to the contrary, your work in our schools next year will be confined to the teaching of academic subjects instead of drawing."

The Appellant wrote a letter protesting against any change in her work to the President and Superintendent of Schools, No reply came to this letter.

At the opening of school in September, 1917, the Appellant was assigned to the fourth grade in the Mount Vernon School. She claims that because of this assignment to grade work there was a demotion in the character of her services, and that such demotion or assignment to the fourth grade was tantamount to a dismissal without preferring charges, which was in violation of the "Tenure of Service" act.

In transferring the Appellant to the fourth grade there was no decrease in the salary. The same salary prevailed in the fourth grade as was paid for her services as a teacher of drawing and sewing. Claim is also made that inasmuch as the Appellant taught before assignment as a teacher of drawing and sewing, in the fifth grade, there was a demotion when she was assigned to the fourth grade.

She further claims that her transfer to the fourth grade was illegally done, because it was not the action of a majority of the whole number of the Board as required by law.

This point is well taken. The transfer of a teacher can only be done at a meeting of the board of education and by a majority of all the members of the board. The answer of the Board to this is that at a subsequent meeting of the Board there was a ratification of the transfer by a majority vote of all the members of the Board.

The question involved in the case is: Can, under the law, a board of education transfer a teacher, who is teaching a single subject, to a grade where several subjects are taught, all these subjects being elementary subjects?

It has been held by this Department on several occasions that a board of education has the right to make assignments of teachers from one elementary grade to another or from the teaching of one elementary subject to the teaching of several elementary subjects in one grade. In other words, a transfer can be made of a teacher who is teaching elementary drawing in several grades to an elementary grade, such as was done in this case.

I therefore hold that there was no violation of the "Tenure of Service" act in the transfer of Miss Shroder as teacher of drawing, a position which she held for a period of one year, to the fourth grade, which was one of the grades in which she taught the special subject of drawing. I hold however, that the transfer was not legally made at the time, but since it was accepted by the Appellant and was affirmed by the Board, it was made legally binding on the Appellant.

The appeal is hereby dismissed.

July 25, 1919.

COUNTY SUPERINTENDENT'S APPROVAL OF NECESSITY FOR TRANSPORTATION

BOARD OF EDUCATION OF BOROUGH OF
WEST LONG BRANCH

Appellant

vs.

COUNTY SUPERINTENDENT OF SCHOOLS
OF MONMOUTH COUNTY

Respondent

DECISION OF THE
COMMISSIONER OF EDUCATION

THOMAS P. FAY, for the Appellant.

This case is submitted for decision upon the Petition of Appeal and upon the Answer filed by the County Superintendent. No hearing was demanded in the case.

The borough school district of West Long Branch has two schools, one at West Long Branch, which contains all the grades. A small school was maintained at Kensington Park, a little center within the Borough of West Long Branch. For several years a primary school was maintained at Kensington Park, and the higher grades were taken care of at the West Long Branch school. This was continued up to five or six years ago, when the Kensington Park school was closed and the children were taken over to the West Long Branch school by vehicular transportation.

The apportionment of school moneys according to law was made to the dis-

strict for the cost of transportation for the year ending June 30, 1917. In the fall of 1918, when the Board of Education sent the contract for transportation to the County Superintendent for his approval, he informed the Board that he could no longer make apportionment for transportation to the district because the distance of the transportation route was less than two miles from the school to which the children were transported. The County Superintendent further informed the Board that this was the policy that he was attempting to follow, namely, that transportation allowance in the apportionment should not be made for a transportation route that was less than two miles in distance from the school building. This, the County Superintendent informed the Board, was the rule that governed him in all other cases concerning the matter of transportation apportionment in Monmouth County.

In accordance with this policy in apportioning moneys for the school year 1918-19, the County Superintendent did not apportion three-fourths of the cost of transportation to the West Long Branch school district.

Appeal is taken from this action and a decision is asked which would reverse the action taken by the County Superintendent and compel him to apportion three-fourths of the cost of transportation.

The law pertaining to the case provides that there shall be apportioned to a school district 75 per cent. of the cost of transportation of pupils to a public school or schools, provided that, subject to appeal as provided in section ten of the act, the necessity for the transportation and the cost and method thereof shall have been approved by the county superintendent of schools of the county in which the district paying the cost of such transportation is situate.

This clause in the law plainly gives the county superintendent discretionary powers in the matter of apportioning moneys for transportation. He is to do it only when he approves the necessity for transportation and the cost and method thereof.

He clearly does not approve of the necessity for transportation, because, as he states, the route is less than two miles.

Inasmuch as it is wholly left to the county superintendent to determine the necessity for transportation, and inasmuch as it appears that he gives reasonable grounds for not approving the necessity for transportation, and it does not appear from the papers in the case that the discretionary powers given to him by law have been abused, I have come to the conclusion that the decision of the County Superintendent in determining this case should not be interfered with.

The appeal, therefore, is hereby dismissed.

August 8, 1919.

RESPONSIBILITY FOR TRANSPORTATION OF PUPIL

WILLIAM E. SEARLES

Appellant

vs.

BOARD OF EDUCATION OF WASHINGTON
TOWNSHIP, MORRIS COUNTY

Respondent

DECISION OF THE
COMMISSIONER OF EDUCATION

William E. Searles, the petitioner in this case, appeals to the Commissioner of Education from a decision made by the Board of Education of Washington Township in refusing to pay for the transportation of his daughter, Mabel E. Searles, to the public school in said township, which he claims is located about two and one-half miles from his home.

It is admitted by the Board of Education that at a meeting of the School Board of Washington Township held August 5, 1918, it was regularly ordered by motion that William E. Searles be allowed \$120 for the transportation of his daughter for the school year.

The County Superintendent refuses to approve the necessity for transportation. Hence he refuses to apportion for the transportation of Mabel E. Searles three-fourths of the cost of said transportation.

It is admitted by the Respondent that it is willing to pay Mr. Searles the amount of \$120, if the County Superintendent will approve the necessity for transportation in this case. The County Superintendent, however, refuses to approve the necessity for transportation and to apportion the money.

The question then resolves itself into this: Is the Board of Education willing to pay \$120 for the transportation to school of Petitioner's daughter, even though the County Superintendent does not approve the necessity therefor and will not apportion three-fourths of the cost?

Section 256 of the School Law, Edition of 1918, paragraph (k) provides in part as follows:

"The county superintendent shall, on or before the first day of April in each year, apportion . . . 75 per centum of the cost of transportation of pupils to a public school or schools; provided, that subject to appeal as provided in section ten of the act to which this act is an amendment, the necessity for the transportation and the cost and method thereof shall have been approved by the county superintendent of schools of the county in which the district paying the cost of such transportation is situate."

The law clearly leaves to the discretion of the county superintendent the matter of apportioning the money. He has a right to exercise his judgment as to whether there is necessity for transportation; also he has a right to exercise his judgment as to the cost of transportation.

It has not been shown that the County Superintendent has in any way abused the discretionary power given him by the statute.

If the resolution of the Board of Education to pay the \$120 to the Appellant for the transportation of his daughter to school was conditioned on the approval of the County Superintendent as to the necessity of such transportation, and conditioned upon the apportionment of three-fourths of the cost, then the Board of Education is not bound to pay the said \$120 to the Appellant. The want of approval, however, by the County Superintendent of the necessity for transportation does not prevent the Board of Education from paying the tuition itself, even though no part of it is apportioned by the County Superintendent.

Inasmuch as it does not appear that the agreement between the Appellant and the Board of Education was unconditioned, and inasmuch as the County Superintendent has by law discretionary power to apportion the money for

transportation, I am of the opinion that the Appellant is not entitled to payment.

The appeal is therefore dismissed.

August 29, 1919.

ADEQUATE PROVISION FOR TRANSPORTATION OF PUPILS

MARTIN L. MUNDY

Appellant

vs.

BOARD OF EDUCATION OF FRANKLIN
TOWNSHIP, HUNTERDON COUNTY

Respondent

DECISION OF THE
COMMISSIONER OF EDUCATION

H. B. HERR, for the Appellant.

WILLIAM H. MORROW, for the Respondent.

This appeal is taken by Martin L. Mundy because of the alleged refusal of the Board of Education of Franklin Township, Hunterdon County, to furnish proper transportation for his daughter to attend the high school at Clinton, five miles distant from the home of the Appellant.

The petition of appeal was duly answered by the Board of Education, and the Appellant then demanded a hearing, which was held at Flemington, August 13, 1919. At this hearing it was brought out that the Board of Education has not provided for a transportation route for any of its pupils to attend high school. It has been the custom to make some arrangement with the parent or guardian of the child to furnish transportation and to make such parent or guardian an allowance for the transportation of the child.

On November 11, at a meeting of the Board of Education, the following minute occurs:

"It was moved and seconded that we pay Martin Mundy \$9 a month or \$90 a school year to transport his daughter to Clinton High School."

Mr. Mundy refused the offer for the time being.

At a meeting of the Board of Education December 28, 1918, the following motion is recorded:

"Resolved, That we rescind a motion made Nov. 11, 1918, to pay Martin Mundy \$9 per month or \$90 per school year for his daughter to Clinton High School."

The motion was adopted by unanimous vote. A motion was then made that the Chairman appoint a committee to meet with Mr. Mundy at the County Superintendent's office at Flemington. Mr. Search, Mr. Volk and Mr. Snyder were the members of the committee appointed to meet Mr. Mundy.

It appears that Mr. Mundy met the committee of the Board of Education at the office of the County Superintendent on December 31, 1918. At this meeting Mr. Mundy agreed to accept \$90 as payment for the transportation of his daughter to the high school at Clinton.

At a meeting of the board held January 11, 1919, it was ordered that Mr.

Mundy be paid the amount of the carfare from the Stanton Station to Clinton High School for the transportation of his daughter.

On February 8, 1919, the motion made on January 11 to pay Mr. Mundy railroad transportation from Stanton Station to Clinton High School was rescinded. After the rescission motion it was ordered that Martin Mundy be paid \$90 for the school year.

Thus it will appear that the Board of Education carried out by formal action the agreement made by its committee at the meeting with Mr. Mundy at the County Superintendent's office on December 31.

At the hearing much testimony was taken to show the cost to Mr. Mundy of conveying his daughter by horse and wagon to the Clinton High School. Mr. Mundy testified that it cost \$30 a month to keep a horse and convey his daughter to Clinton for the ten months of the school year. Thus it will appear that the Appellant demands \$300 as an allowance for transportation.

Boards of education are obliged by law to provide suitable school facilities and accommodations for all children residing in the district and desiring to attend the public schools therein. Such facilities and accommodations include proper school buildings together with furniture and equipment, convenience of access thereto and courses of study suited to the age and attainments of all pupils between the ages of five and twenty years.

The law goes on to state that these school facilities may be provided either in schools within the district convenient of access to the pupils or may be provided in schools outside the district. This is plainly commanded by the law. The law further provides that where a school is not convenient of access, the board of education must furnish transportation.

In the case of Mr. Mundy, living as he did five miles from a high school, he is entitled to some kind of transportation, in order that the school may be put within convenient access to his home.

It appears that a regular transportation route with vehicular conveyance has never been established in Franklin Township. Therefore, by rule of the Board of Education an allowance was made of \$90 for each pupil who lived at a distance of two and a half miles or more from a high school, and in case convenient railroad transportation could not be secured. With this allowance parents were to do the best they could in furnishing transportation for their children.

This method was based on mutual agreement between the parents and the Board of Education.

It appears in the case of Martin L. Mundy that there is a railroad station at Stanton one and seven-tenths miles from his home. The Board of Education offered railroad transportation by this route to Mr. Mundy, but he refused it, on the grounds that the road to the railroad station was a lonely one, and further that the train did not reach Stanton Station until 5.25 p. m. The train in the morning left at 9.15 and arrived at Clinton about 9.30. One point to be considered is whether this train transportation is reasonably adequate.

It would seem that the train service in the morning was a little short, but not so serious as to make this service in itself really objectionable. Neither is the service in the matter of the return in the afternoon entirely bad.

Steam railways are used as a medium of transportation of pupils to high school all over the state. The service, so far as the hour of leaving and returning goes, is reasonably adequate.

The question of the distance from Stanton Station to Mr. Mundy's home, namely, one and seven-tenths miles is next to be considered. This it is stated is very objectionable because it is a lonely road and sometimes a very bad road.

Boards of education have nothing to do with the making of roads and are not responsible for their loneliness nor for their bad condition.

It thus appears that the board of education did offer to Mr. Mundy two separate propositions: first, to allow him \$90 for the transportation of his child in such way as he might think proper; and second, to allow him railroad transportation from Stanton Station to Clinton, the Stanton station being, as has been said, one and seven-tenths miles from his home.

It thus appears that the Board of Education did not neglect to provide in one way or the other for transportation.

Mr. Mundy agreed to accept the offer of \$90. This agreement was made in the office of the County Superintendent with a committee of the Board of Education appointed for the purpose of reaching an agreement on the subject.

At a subsequent meeting of the Board of Education, namely, February 8, 1919, the Board confirmed the report of that committee in regard to the amount to be paid to Mr. Mundy.

There was, to be sure, some confusion, which resulted from the Board's offering transportation from Stanton Station, and because of Mr. Mundy's refusal of this, together with other things that mixed the matter up considerably. The conclusion, however, that I reach in the matter is this.

The transportation offered to Mr. Mundy from Stanton Station is reasonable considering all conditions in country school districts. Upon Mr. Mundy's refusal to accept this offer, it must be concluded that he meant he was willing to accept the other, which he agreed to do.

I therefore conclude that Mr. Mundy, having continued to have his daughter transported by his own conveyance to the Clinton High School, and having agreed to accept \$90, now comes to ask that this agreement be set aside by the Commissioner of Education, and that a larger sum be allowed him on the basis of the cost to him of keeping a horse for the purpose of transporting his daughter to the Clinton High School.

When agreements are entered into by parents to do their own transporting, it must be on the ground of a filial interest in one's own children. And the usual method of arriving at a proper compensation in cases of this kind should not be applied.

I therefore give it as my decision that Mr. Mundy be paid by the Board of Education of Franklin Township the sum of \$90 as per agreement for the transportation of his daughter to the Clinton High School for the school year ending June 30, 1919.

The appeal is hereby dismissed.

September 11, 1919.

PART III

SECTION A

FINANCIAL AND OTHER STATISTICS BY COUNTIES

For the year ending June 30, 1919

TABLE I
CURRENT EXPENSE FUNDS.

RECEIPTS FROM STATE AND COUNTY FUNDS FOR CURRENT EXPENSES.

COUNTIES.	From \$250,000 State School Fund Appropriation.	From Appropriation to Reduce State School Tax.	From 30 per cent. State School Tax.	From 10 per cent. State School Tax Reserve Fund.	From Interest on Surplus Revenue.	From Reapportioned Balances.	Total Receipts During the Year from State and County Current Expense Fund.
Atlantic	96,921 06	94,340 99	3304,391 26	326,043 43	9534 13	.....	3343,231 06
Bergen	19,253 31	6,796 73	479,732 73	53,302 53	1,796 08	.....	560,889 43
Burlington	5,540 64	1,359 33	95,941 90	33,000 21	4,363 96	\$1,325 00	141,191 03
Camden	13,963 53	4,303 33	303,679 03	33,743 19	1,529 71	.....	356,332 09
Cape May	1,840 16	1,343 03	95,144 33	8,571 65	750 00	.....	107,654 05
Cumberland	5,414 03	1,057 33	72,508 94	33,056 55	1,796 13	.....	112,773 96
Essex	54,773 05	33,764 99	1,677,354 99	166,373 73	.....	.....	1,923,265 31
Gloucester	3,701 64	1,238 36	86,734 26	9,637 14	1,811 59	6 36	104,190 37
Hudson	47,624 23	21,796 16	1,533,534 29	149,943 26	.....	.....	1,757,906 04
Hunterdon	2,494 39	783 33	55,633 50	13,151 49	.....	213 06	77,316 73
Mercer	11,166 36	4,500 33	317,639 59	35,293 29	370 03	.....	363,970 73
Middlesex	11,914 96	3,573 15	252,196 16	23,021 30	.....	.....	296,706 97
Monmouth	9,204 29	4,190 16	235,744 96	31,960 55	2,579 06	.....	343,579 64
Morris	6,474 33	2,019 35	142,537 51	15,396 40	2,600 00	.....	170,457 09
Ocean	1,934 64	314 99	57,533 71	6,391 41	904 10	.....	67,557 25
Passaic	21,493 47	7,154 59	504,970 96	56,107 29	1,163 38	634 53	591,534 30
Salem	2,796 36	1,050 36	74,123 46	8,236 59	2,099 46	.....	83,313 04
Somerset	2,961 50	1,329 37	93,863 53	10,429 26	2,899 09	.....	112,483 37
Sussex	2,145 64	856 63	60,461 91	6,717 29	2,331 34	.....	72,503 51
Union	14,736 96	6,619 34	467,192 13	46,919 34	.....	.....	536,443 56
Warren	3,643 33	1,136 34	80,196 67	8,919 74	.....	.....	93,896 53
Total	\$250,000 00	\$100,000 00	\$7,053,091 31	\$784,233 37	\$38,463 21	\$2,185 21	\$8,232,973 19

TABLE I--Continued
CURRENT EXPENSE FUNDS.
RECEIPTS FROM DISTRICT TAXES, RAILROAD TAX AND OTHER SOURCES FOR CURRENT EXPENSE.

COUNTIES.	Balance on Hand Beginning of Year in State and County Current Expense Funds.	Total Receipts During the Year and Balance on Hand Beginning of Year.	From District Taxes for Current Expense.	From Railroad Tax.	From Other Sources.			For Current Expense.		
					A--Interest on Deposits.	B--Sale of Books.	C--Defacement of Property.	D--Tuition Fees.	E--Return Premiums on Fire Insurance.	
Atlantic	\$343,231 66	\$275,960 75	\$137,758 64	\$3,278 53	\$29 08	.....	\$12,859 03	\$114 72	
Bergen	560,869 43	1,206,319 36	215,245 45	6,637 01	480 79	\$155 24	72,236 11	606 99	
Burlington	141,191 03	285,162 98	43,116 49	1,067 89	81 31	3 55	30,567 13	240 79	
Camden	256,222 69	721,819 83	136,296 65	2,591 01	58 07	.....	31,981 46	4 46	
Cape May	107,654 66	78,896 53	42,765 41	647 55	116 60	.....	7,716 13	6 94	
Cumberland	112,772 96	255,251 24	32,593 65	535 03	24 34	48 33	10,201 00	.....
Essex	1,922,265 81	3,190,837 45	753,987 71	15,908 75	723 65	363 00	25,719 22	183 88	
Gloucester	103,120 37	197,151 86	38,920 35	2,267 23	7 96	5 90	26,922 15	15 84	
Hudson	1,767,906 04	2,619,713 67	691,304 11	8,256 96	896 95	406 88	42,584 96	1,331 01	
Hunterdon	77,424 85	128,884 53	25,019 17	57 19	114 98	9 84	24,612 83	328 17	
Mercer	368,970 72	501,017 29	142,718 23	3,492 93	1 08	506 41	21,727 84	15 90	
Middlesex	295,706 07	686,072 96	113,195 54	3,407 23	130 60	230 23	32,655 23	44 57	
Monmouth	343,579 64	439,956 29	132,931 20	5,083 33	20 89	18 35	43,306 22	70 54	
Morris	170,457 69	377,246 78	64,076 41	3,244 49	90 95	67 41	31,300 70	.....
Ocean	67,567 85	129,143 75	25,847 95	416 63	11 51	.....	8,681 93	.....
Passaic	591,534 80	972,575 62	226,317 62	3,374 81	594 15	313 43	19,889 54	196 74	
Salem	83,313 04	135,431 64	33,321 96	115 05	.....	60	14,569 85	9 17	
Somerset	112,453 27	213,909 52	42,357 43	1,412 27	39 40	43 06	14,555 45	18 31	
Sussex	72,503 51	112,591 55	27,119 33	312 89	5 75	7 52	18,723 50	.....
Union	536,443 55	921,084 80	210,108 43	6,975 09	406 01	48 55	23,709 66	2,799 39	
Warren	93,886 53	184,003 78	36,003 21	365 42	27 91	.....	18,469 86	22 57	
Total	\$108 06	\$8,223,080 16	\$13,533,032 33	\$3,171,004 98	\$67,497 39	\$3,851 08	\$2,228 90	\$533,043 92	\$6,007 99	

TABLE I—Continued
CURRENT EXPENSE FUNDS.
RECEIPTS FROM DISTRICT TAXES, RAILROAD TAX AND OTHER SOURCES.—Continued.

COUNTIES.	From all Other Sources for Current Expense not Cov- ered by Columns A, B, C, D, E.		Total Receipts During the Year from District Tax, Railroad Tax and Other Sources for Current Ex- pense.		Balance on Hand Beginning of Year in District Tax, Railroad Tax and Other Sources for Current Ex- pense.		Total Receipts During the Year and Balance on Hand Beginning of Year: Dis- trict Tax, Railroad Tax and Other Sources.		Grand Total of Receipts During the Year and Bal- ance on Hand Beginning of Year for Current Ex- pense.	
	\$1,325 06	\$431,325 86	\$37,079 18	\$468,405 04	\$811,636 70					
Atlantic	11,332 54	1,512,063 49	239,082 31	1,752,145 80	2,313,015 23					
Bergen	4,968 38	366,208 52	33,227 43	398,436 95	539,626 98					
Burlington	4,063 87	896,806 40	51,978 53	948,783 93	1,305,006 62					
Camden	363 27	130,512 48	23,784 08	154,296 56	261,951 21					
Cape May	242 46	298,896 05	42,925 12	341,821 17	454,594 13					
Cumberland	67,943 24	4,055,666 90	346,819 36	4,402,496 26	6,324,752 07					
Essex	8,819 31	272,110 65	29,167 21	301,277 86	404,398 23					
Gloucester	50,005 04	3,414,488 58	148,871 74	3,563,360 32	5,321,265 36					
Hudson	8,632 33	187,657 09	14,033 24	201,690 33	279,115 18					
Hunterdon	15,328 11	684,807 79	40,350 26	726,158 04	1,094,128 76					
Mercer	26,417 08	862,153 54	70,653 11	932,808 65	1,228,512 72					
Middlesex	1,628 92	623,015 24	82,072 94	705,088 18	1,048,687 82					
Monmouth	5,561 96	481,548 70	62,940 99	544,489 69	714,947 38					
Morris	335 14	164,497 06	23,531 16	188,028 21	255,596 06					
Ocean	4,589 04	1,227,551 02	50,944 12	1,278,095 14	1,869,629 94					
Passaic	2,580 69	186,028 95	26,737 71	212,766 66	301,079 70					
Salem	977 61	273,413 06	21,816 74	295,229 79	407,683 06					
Somerset	1,615 31	160,375 90	32,779 38	193,155 28	265,658 79					
Sussex	6,937 03	1,072,068 96	93,759 71	1,165,828 67	1,701,277 22					
Union	3,991 84	242,884 59	16,703 21	259,587 80	353,474 33					
Warren										
Total	\$227,708 23	\$17,544,379 82	\$1,488,557 51	\$19,032,937 33	\$27,256,017 49					

TABLE I--Continued
CURRENT EXPENSE FUNDS.

PAYMENTS FROM CURRENT EXPENSE FUNDS.

COUNTIES.	Salaries of Superintendent, Supervising Principals, Super- visors, and Amount Paid to State Treasurer for Re- tirement Fund.		Salaries of Janitors, Mi- nors and Firemen.		County Supervisor Child Study.		Fuel.		Transportation of Pupils to Other Districts.		Transportation of Pupils Within the District.		Tuition Fees.		Expense of Superintendent, Supervising Principals, Su- pervisors, Principals and Teachers.		Salary Helping Teacher.	
Atlantic	\$548,808 78		\$50,145 65		.....		\$32,753 63		\$13,402 26		\$15,528 20		\$10,242 10		\$9,677 76		\$1,500 00	
Bergen	1,324,892 57		155,257 53		.....		105,513 31		23,572 70		11,510 56		76,249 75		8,644 37		3,000 00	
Burlington	290,249 99		27,063 43		.....		25,626 62		22,240 68		45,536 65		23,233 50		494 85		4,500 00	
Camden	842,175 39		111,321 76		.....		64,067 58		10,843 62		6,187 62		34,289 15		7,134 40		1,500 00	
Cape May	147,262 04		16,814 01		.....		12,012 77		8,667 93		12,281 71		6,354 86		1,124 52		1,500 00	
Cumberland	299,544 81		21,107 83		.....		18,942 16		9,972 78		21,399 11		8,163 00		1,553 59		2,849 00	
Essex	4,297,210 23		373,230 94		.....		206,544 17		3,842 11		15,555 13		5,596 00		17,753 50		1,400 00	
Gloucester	214,201 87		19,262 95		.....		19,321 90		13,335 95		9,364 40		23,123 22		1,086 89		1,400 00	
Hudson	3,535,615 62		359,714 74		.....		221,643 93		4,896 12		4,483 40		36,449 00		29,675 62		.....
Hunterdon	144,236 66		8,576 21		.....		11,289 13		28,530 20		5,629 00		27,564 17		155 32		3,000 00	
Mercer	727,478 11		71,961 08		.....		46,377 85		6,677 44		27,015 83		15,555 66		3,223 53		.....
Middlesex	768,448 90		73,836 19		.....		52,550 07		22,231 77		25,790 92		47,962 22		2,893 09		.....
Monmouth	607,103 26		61,464 69		.....		43,144 79		28,100 80		23,451 50		46,727 08		2,806 39		1,500 00	
Morris	413,626 07		33,567 64		.....		32,994 50		20,424 13		28,354 59		28,830 69		1,628 55		1,403 00	
Ocean	125,485 59		10,359 78		.....		8,860 14		21,053 85		8,187 11		7,613 25		5,222 63		1,500 00	
Passaic	1,395,061 14		113,513 25		.....		62,777 54		7,805 04		7,905 07		21,909 70		5,441 21		1,500 00	
Salem	163,954 60		15,543 30		.....		11,967 28		14,570 27		13,060 17		16,290 65		267 07		1,400 00	
Somerset	246,110 24		19,531 50		.....		18,463 20		15,611 90		8,493 42		24,423 13		1,472 79		1,500 00	
Sussex	125,337 63		6,539 25		.....		9,329 61		29,063 71		10,740 39		17,590 30		934 06		1,500 00	
Union	1,144,298 11		112,242 23		.....		77,050 41		2,679 63		3,354 64		10,663 85		8,737 32		1,500 00	
Warren	152,938 84		14,301 83		.....		14,808 22		22,296 76		16,557 91		18,580 92		533 99		3,000 00	
Total	\$17,833,134 55		\$1,685,995 39		\$1,850 00		\$1,096,559 06		\$334,964 74		\$320,917 98		\$518,047 45		\$105,496 45		\$35,443 00	

TABLE I—Continued
CURRENT EXPENSE FUNDS.
PAYMENTS FROM CURRENT EXPENSE FUNDS.—Continued.

COUNTIES.	Medical Inspection, Salaries, Supplies and Other Expenses.	Compulsory Attendance, Salaries, Supplies and Other Expenses.	Salary of District Clerk or Secretary.	Salary of Custodian of School Monies.	All Other Salaries, Supplies and Other Expenses of Board of Education and Business Offices.
Atlantic	\$13,752 00	\$6,031 29	\$6,202 30	\$1,343 45	\$2,739 16
Bergen	19,708 34	14,315 82	19,848 27	4,754 59	16,453 22
Burlington	6,196 11	2,350 65	4,975 97	2,080 00	2,343 70
Camden	14,459 00	7,532 60	8,208 72	1,486 89	12,313 50
Cape May	2,865 74	2,016 75	2,962 76	1,024 92	4,329 93
Cumberland	3,938 65	1,519 42	3,035 81	665 00	2,077 46
Essex	79,118 41	37,582 27	19,468 56	1,751 36	127,901 09
Gloucester	4,788 16	1,570 00	3,796 20	840 00	990 85
Hudson	77,571 52	57,262 58	20,004 94	4,251 05	70,713 23
Hunterdon	1,380 85	1,403 84	2,802 33	1,010 00	2,188 92
Mercer	15,166 05	7,854 30	6,225 00	2,024 98	13,501 52
Middlesex	11,070 02	5,160 98	7,871 03	3,546 83	2,984 22
Monmouth	10,902 04	5,731 26	9,461 01	2,124 96	4,536 98
Morris	10,931 19	4,556 14	6,601 88	2,348 98	3,096 39
Ocean	2,215 00	1,136 32	1,751 26	977 91	806 58
Passaic	13,676 13	12,615 07	7,680 54	2,734 00	19,680 36
Salem	2,518 92	777 50	2,465 85	590 00	1,003 05
Somerset	4,232 48	2,657 77	3,556 77	1,204 99	2,372 14
Sussex	3,155 66	993 31	2,343 12	675 00	648 54
Union	19,259 13	11,676 26	12,301 73	1,533 50	16,063 04
Warren	3,812 70	1,346 32	2,339 50	898 93	1,668 48
Total	\$320,717 11	\$186,090 45	\$154,548 55	\$37,806 34	\$309,462 36

TABLE 1—Continued
CURRENT EXPENSE FUNDS.
PAYMENTS FROM CURRENT EXPENSE FUNDS.—Continued.

COUNTIES.	Insurance Premiums.	Wages of Other Employees.	Lectures and Recreation.	For Evening Schools, Sec. 174. 1914 Edition.	
				Salaries Supervisors, Principals and Teachers.	All Other Salaries, Supplies and Ex- penses.
Atlantic	\$6,123 49	\$12,659 70	\$2,125 42	.....	.....
Bergen	14,762 18	3,496 08	1,947 58	\$2,846 62	\$294 96
Burlington	3,215 66	1,889 62	168 00	160 00	.....
Camden	6,346 32	661 10	390 34	2,375 56	114 00
Cape May	2,455 42	1,263 31	150 00	60 00	.....
Cumberland	3,416 21	1,526 53	.....	315 00	.....
Essex	33,992 39	12,648 04	34,302 09	85,128 38	13,736 06
Gloucester	2,425 65	939 73	165 31	640 00	95 00
Hudson	31,434 59	15,752 36	15,249 59	19,385 50	3,097 71
Hunterdon	1,911 65	825 33	.....	.....	.....
Mercer	6,694 17	6,743 49	726 10	9,708 50	2,308 18
Middlesex	4,870 13	696 20	1,477 56	1,909 43	3,708 12
Monmouth	7,495 01	2,065 52	1,974 72	188 00	.....
Morris	4,245 66	2,070 19	1,294 73	2,111 00	289 59
Ocean	2,111 38	1,010 57	418 47	.....	.....
Passaic	5,617 42	6,398 00	116 00	8,450 00	1,677 35
Salem	2,105 90	2,083 97	355 63	.....	.....
Somerset	1,911 26	1,401 70	324 55	.....	.....
Sussex	1,553 86	1,023 25	39 30	.....	.....
Union	11,975 46	2,416 47	1,174 07	8,788 00	1,347 76
Warren	2,855 23	3,494 06	8 75	.....	.....
Total	\$157,519 04	\$81,070 22	\$62,408 21	\$142,065 99	\$28,683 71

TABLE I—Continued
CURRENT EXPENSE FUNDS.
PAYMENTS FROM CURRENT EXPENSE FUNDS.—Continued.

COUNTIES.	Special Summer Schools.		Interest on Temporary Loans.	Telephone Service.	Incidental Expenses.	Total of Current Expense Expenditures During the Year.	Total Balance in Current Expense Account at Close of Year.	Grand Total of Current Expense Expenditures During Year, and Balance on Hand at Close of Year.
	Salaries, Supervisors, Principals and Teachers.	All Other Salaries, Supplies and Expenses.						
Atlantic	\$2,395 00	.....	\$1,664 28	\$353 54	\$2,663 11	\$782,830 60	\$28,816 10	\$811,636 70
Bergen .....	.....	\$53 54	5,413 75	6,493 12	6,890 34	2,005,929 11	207,066 12	2,212,995 23
Burlington .....	.....	.....	2,232 91	709 26	846 23	517,538 61	22,038 37	539,576 98
Camden .....	.....	.....	15,574 20	1,516 28	2,305 24	1,264,210 90	50,795 72	1,315,006 62
Cape May .....	.....	.....	1,120 01	72 83	996 35	245,678 53	16,272 63	261,951 21
Cumberland	155 00	845 00	953 74	522 69	570 02	405,781 76	48,812 37	454,594 13
Essex	72,074 87	11,315 69	2,265 92	7,240 83	23,125 09	5,869,679 86	455,072 21	6,324,752 07
Gloucester .....	.....	.....	1,050 34	237 69	2,267 56	267,454 77	46,943 46	314,398 23
Hudson	36,583 18	905 84	36,806 49	7,072 49	29,659 30	5,207,923 37	112,341 99	5,320,265 36
Hunterdon .....	.....	.....	623 00	221 98	1,248 01	261,037 45	18,077 73	279,115 18
Mercer .....	.....	.....	1,085 90	2,299 13	2,639 30	1,042,899 06	51,229 71	1,094,128 76
Middlesex	6,888 50	537 53	2,443 85	1,533 10	2,315 10	1,110,119 81	118,393 41	1,228,512 72
Monmouth	239 82	.....	1,353 20	1,549 27	2,785 49	833,236 99	115,430 83	1,048,667 82
Morris .....	.....	.....	1,877 46	1,455 65	1,625 13	664,938 38	50,009 00	714,947 38
Ocean .....	.....	.....	445 66	198 15	531 08	208,322 19	47,373 87	255,696 06
Passaic	3,034 26	107 45	3,383 46	1,294 37	2,082 18	1,816,733 72	52,897 22	1,869,630 94
Salem .....	.....	.....	428 60	253 05	244 70	269,353 56	31,798 14	301,151 70
Somerset	765 00	.....	595 57	731 76	241 42	379,120 63	28,662 43	407,783 06
Sussex	792 00	50 00	79 22	95 70	490 05	225,478 77	40,180 02	265,658 79
Union	600 00	.....	3,263 17	3,939 12	5,520 28	1,585,121 00	116,146 22	1,701,267 22
Warren .....	.....	.....	532 98	333 61	502 23	313,628 50	29,845 83	343,474 33
Total	\$123,527 62	\$13,370 05	\$85,198 81	\$32,212 51	\$108,623 28	\$35,457,066 11	\$1,798,951 33	\$37,256,017 49

TABLE 2
MANUAL AND INDUSTRIAL TRAINING FUNDS.

RECEIPTS.

COUNTIES.	From State Appropriation.	From District Tax for Manual Training.	From Subscriptions, Entrance- tainsments, etc.	From Sale of Manual Training Materials.	Total Receipts During the Year for Manual Training.	Balance on Hand Beginning of Year.	Total Receipts During the Year and Balance on Hand Beginning of Year.
Atlantic	\$11,987 65	\$21,681 77	.....	\$151 93	\$38,771 35	\$4,813 97	\$38,586 33
Bergen	43,896 23	46,407 62	\$1,587 05	1,610 59	93,508 48	18,576 86	112,080 34
Burlington	4,824 53	4,620 84	276 30	278 43	10,000 15	2,373 00	12,373 15
Camden	10,483 02	15,151 98	.....	135 73	25,770 72	1,386 00	27,156 72
Cape May	4,284 79	4,150 00	.....	53 33	8,487 12	974 46	9,461 58
Cumberland	9,268 03	9,064 78	550 00	239 33	19,242 13	1,312 48	20,554 61
Essex	43,523 01	118,209 96	4,143 20	1,854 70	167,730 87	3,900 47	171,721 34
Gloucester	5,276 60	10,222 54	.....	2,780 53	18,229 67	988 08	19,217 75
Hudson	34,287 87	83,189 24	160 65	1,755 13	119,392 49	19,570 00	138,962 49
Hunterdon	2,747 68	4,094 59	2,000 00	673 16	9,515 48	100 00	9,615 48
Mercer	13,721 49	26,660 12	512 50	204 89	41,099 00	1,443 42	42,542 42
Middlesex	21,116 27	25,835 02	1,449 76	607 04	49,008 09	5,595 87	54,603 96
Monmouth	20,100 39	16,692 80	250 00	181 86	37,226 05	6,749 87	43,974 92
Morris	12,572 31	12,979 00	128 74	2 60	25,683 65	9,996 18	35,679 83
Ocean	2,349 22	3,150 29	43 83	.....	5,543 39	2,101 49	7,644 88
Passaic	14,352 70	46,844 97	1,940 23	1,595 61	64,643 56	2,026 48	66,670 04
Salem	4,915 00	6,667 77	.....	98 99	11,676 76	1,788 62	13,465 38
Somerset	3,687 72	4,000 00	1,651 56	35 83	9,776 16	2,784 92	11,510 08
Sussex	4,252 72	4,437 50	289 19	51 36	9,010 77	4,323 11	13,333 88
Union	30,275 59	30,637 50	267 89	806 16	62,006 55	8,129 81	70,136 36
Warren	4,809 73	5,700 00	.....	11 80	10,521 53	3,808 78	14,330 30
Total	\$302,784 07	\$500,413 39	\$14,689 41	\$12,963 04	\$830,836 91	\$102,633 37	\$933,518 28

TABLE 2—Continued

MANUAL AND INDUSTRIAL TRAINING FUNDS.

PAYMENTS.

COUNTIES.	DAY SCHOOLS.					
	Salaries of Supervisors, Principals and Teachers and Amount Paid to State Treasurer for Retirement Fund.	Manual and Industrial Training, Material and Supplies.	Repairs and Re-placements.	New Equipment.	All Other Expense Incident to Manual and Industrial Training.	Total Manual and Industrial Training Expenditures, Day Schools.
Atlantic	\$20,299 01	\$6,947 48	\$390 08	\$2,588 03	\$32 23	\$30,756 82
Bergen	62,317 91	16,520 34	917 87	1,832 06	1,544 56	83,132 23
Burlington	6,452 21	1,658 27	470 85	1,107 50	23 21	9,721 04
Camden	15,185 41	10,851 29	324 62	398 98	.....	26,760 20
Cape May	5,749 02	1,412 21	.....	315 21	.....	7,483 51
Cumberland	11,342 08	3,522 62	.....	1,581 63	17 07	16,383 82
Essex	120,416 29	34,639 24	370 12	3,553 27	67 32	161,722 60
Gloucester	8,220 00	2,621 83	421 08	1,084 44	978 47	16,497 77
Hudson	86,895 10	20,525 21	3,708 23	1,847 23	1,492 22	114,453 09
Hunterdon	3,466 60	1,129 23	528 80	4,392 08	72 67	9,615 43
Mercer	24,988 53	9,005 28	642 88	279 26	912 65	35,828 70
Middlesex	21,814 21	9,052 78	905 11	3,669 51	1,275 03	46,596 64
Monmouth	28,463 11	4,460 52	868 50	415 52	205 26	34,402 91
Morris	16,167 49	5,171 22	366 23	4,267 87	684 88	26,647 69
Ocean	3,207 85	642 25	115 85	.....	.....	3,968 05
Passaic	47,189 03	10,127 15	186 97	5,980 69	183 56	63,671 50
Salem	8,394 92	2,656 76	64 75	311 56	.....	11,437 99
Somerset	7,963 56	1,440 65	84 93	55 20	705 08	10,249 42
Sussex	4,526 99	787 27	26 78	21 20	50 00	5,372 24
Union	43,370 98	13,369 64	1,289 24	2,028 08	502 23	60,510 37
Warren	7,012 75	1,474 47	302 39	531 17	64 91	9,388 69
Total	\$563,433 06	\$157,966 00	\$14,451 71	\$36,261 29	\$12,962 86	\$786,094 91

COUNTIES.

SCHOOL REPORT.

TABLE 2—Continued
MANUAL AND INDUSTRIAL TRAINING FUNDS.

PAYMENTS.

COUNTIES.	EVENING SCHOOLS.						Total Manual and Industrial Training Expenditures—Evening Schools.	Balance in Manual and Industrial Training Account Close of Year.	Grand Total of Expenditures During the Year and Balance on Hand Close of Year.
	Salaries of Supervisors, Principals and Teachers and Amount Paid to State Treasurer for Retirement Fund.	Manual and Industrial Training, Material and Supplies.	Repairs and Replacements.	New Equipment.	All Other Expense Incidental to Manual and Industrial Training.	Total Manual and Industrial Training Expenditures—Evening Schools.			
Atlantic	\$30,756 82	\$7,828 50	\$38,585 32
Bergen	83,138 22	28,947 01	112,085 24
Burlington	9,721 04	2,651 11	12,372 15
Camden	26,760 20	286 42	27,046 62
Cape May	7,493 51	1,968 07	9,461 58
Cumberland	16,833 23	3,570 79	20,404 02
Essex	\$1,759 23	.....	.....	.....	\$1,759 23	162,482 83	3,233 51	171,721 24
Gloucester	16,457 77	2,729 98	19,217 75
Hudson	264 00	.....	.....	.....	.....	264 00	114,722 09	24,240 40	138,962 49
Hunterdon	9,615 43	.....	9,615 43
Mercer	26,829 70	6,712 72	33,542 42
Middlesex	46,596 64	3,007 32	54,603 96
Monmouth	24,402 91	9,572 01	33,974 92
Morris	94 00	.....	.....	.....	.....	94 00	26,741 69	3,937 14	30,678 83
Ocean	3,968 05	3,678 83	7,646 88
Passaic	63,671 50	2,998 54	66,670 04
Salem	11,437 39	2,057 39	13,494 78
Somerset	10,249 42	1,260 68	11,510 10
Sussex	5,272 24	7,968 64	13,240 88
Union	60,510 37	9,625 49	70,135 86
Warren	9,286 69	4,238 61	14,525 30
Total	\$358 00	\$1,759 23	.....	.....	.....	\$2,117 23	\$757,212 14	\$146,306 14	\$903,518 28

TABLE 3
EVENING SCHOOLS FOR FOREIGN-BORN RESIDENTS FUNDS.

RECEIPTS.

COUNTIES.	RECEIPTS.					
	From State Appropriation, Sec. 176.	From District Tax for Foreign-Born Residents, Sec. 176.	From All Other Sources for Evening School for Foreign-Born Residents, Sec. 176.	Total Receipts During the Year for Evening School for Foreign-Born Residents.	Balance on Hand Beginning of Year.	Total Receipts During the Year and Balance on Hand Beginning of Year.
Atlantic .....	.....	\$100 00	.....	\$100 00	\$792 67	\$892 67
Bergen .....	.....	.....	.....	.....	.....	.....
Burlington .....	.....	.....	.....	.....	.....	.....
Camden .....	.....	.....	.....	.....	.....	.....
Cape May .....	.....	.....	.....	.....	.....	.....
Cumberland .....	.....	.....	.....	.....	.....	.....
Essex .....	.....	345 41	.....	345 41	.....	345 41
Gloucester .....	.....	.....	.....	.....	.....	.....
Hudson	\$1,500 00	6,000 00	.....	7,500 00	.....	7,500 00
Hunterdon .....	.....	.....	.....	.....	.....	.....
Mercer .....	.....	.....	.....	.....	.....	.....
Middlesex	2,515 83	3,271 25	.....	5,787 08	.....	5,787 08
Monmouth .....	.....	200 00	.....	200 00	120 00	320 00
Morris .....	.....	.....	.....	.....	250 00	250 00
Ocean .....	.....	.....	.....	.....	.....	.....
Passaic	1,500 00	1,500 00	.....	3,000 00	711 78	3,711 78
Salem .....	.....	.....	.....	.....	.....	.....
Somerset .....	.....	.....	.....	.....	15 93	15 93
Sussex .....	.....	.....	.....	.....	.....	.....
Union	300 00	300 00	\$204 16	804 16	284 06	1,088 22
Warren .....	.....	.....	.....	.....	.....	.....
Total	\$5,815 83	\$11,716 66	\$204 16	\$17,736 65	\$2,174 44	\$19,911 09

TABLE 3—Continued

EVENING SCHOOLS FOR FOREIGN-BORN RESIDENTS FUNDS.

PAYMENTS.

COUNTIES.	Salaries, Teachers, Principals and	Text Books and Supplies.	Janitors' Salaries.	Other Expenditures.	Total Expenditures During the Year.	Balance in Evening School for Foreign-Born Residents' Account at Close of Year.	Grand Total of Expenditures During the Year and Balance on Hand at Close of Year.
Atlantic	\$393 00	\$1 23	\$104 50	\$16 50	\$515 23	\$377 45	\$392 67
Bergen							
Burlington							
Camden							
Cape May							
Cumberland							
Essex	264 00	9 41	72 00		345 41		345 41
Gloucester							
Hudson	8,754 17	283 81	110 00	90 91	4,268 89	3,261 11	7,500 00
Hunterdon							
Mercer							
Middlesex	4,493 54	318 04	360 50	615 00	5,787 08		5,787 08
Monmouth						320 00	320 00
Morris						250 00	250 00
Ocean							
Passaic	2,745 50	64 17	519 50		3,329 17	863 61	3,711 78
Salem							
Somerset						15 93	15 93
Sussex							
Union	652 50	105 14	201 00	14 54	973 18	115 04	1,088 22
Warren							
Total	\$12,302 71	\$781 79	\$1,367 50	\$736 95	\$15,188 95	\$4,722 14	\$19,911 09

TABLE 4
VOCATIONAL SCHOOL FUNDS.

RECEIPTS.

COUNTIES.	RECEIPTS.					Grand Total Receipts During the Year and Balance on Hand Beginning of Year.
	From State Appropriation.	From District Tax for Vocational Schools.	From All Other Sources for Vocational Schools.	Total Receipts During the Year.	Balance on Hand Beginning of Year.	
Atlantic	\$10,000 00	\$16,450 00	9650 00	\$27,100 00	\$1,280 06	\$38,380 06
Bergen .....	.....	250 00	.....	250 00	203 31	453 31
Burlington .....	.....	.....	.....	.....	.....	.....
Camden .....	.....	.....	.....	.....	.....	.....
Cape May .....	.....	.....	.....	.....	71 14	71 14
Cumberland .....	.....	.....	.....	.....	.....	.....
Essex	6,288 78	92,306 48	6,534 07	105,019 33	1,209 37	106,228 70
Gloucester .....	.....	.....	.....	.....	.....	.....
Hudson	24,050 00	54,286 02	1,630 77	80,066 79	1,800 29	91,917 23
Hunterdon .....	.....	.....	.....	.....	.....	.....
Mercer .....	.....	.....	.....	.....	.....	.....
Middlesex	497 78	250 00	.....	747 78	799 74	1,546 52
Monmouth	5,229 11	1,315 00	2,184 06	8,728 17	.....	8,728 17
Morris .....	.....	.....	.....	.....	89 43	89 43
Ocean .....	.....	.....	.....	.....	.....	.....
Passaic	6,040 59	9,831 66	113 63	14,985 88	1,248 14	16,234 02
Salem .....	.....	.....	.....	.....	.....	.....
Somerset .....	.....	.....	.....	.....	.....	.....
Sussex	3,499 27	3,700 00	556 23	7,755 50	1,577 19	9,332 69
Union .....	.....	.....	.....	.....	.....	.....
Warren .....	.....	.....	.....	.....	.....	.....
Total	\$84,606 12	\$172,383 16	\$11,654 41	\$268,643 70	\$8,338 31	\$352,967 01

TABLE 4—Continued
VOCATIONAL SCHOOL FUNDS.

PAYMENTS.

COUNTIES.	DAY SCHOOLS.					
	Salaries of Super- visors, Principals and Teachers and Amount Paid to State Treasurer for Retirement Fund.	Material and Sup- plies.	Repairs and Re- placements.	New Equipment.	All Other Expense Incident to Voca- tional Schools.	Total Expenditures During the Year for Vocational Day Schools.
Atlantic	\$30,765 00	\$4,496 53	.....	\$1,395 26	.....	\$36,653 24
Bergen .....	.....	.....	.....	.....	.....	.....
Burlington .....	.....	.....	.....	.....	.....	.....
Camden .....	.....	.....	.....	.....	.....	.....
Cape May .....	.....	.....	.....	.....	.....	.....
Cumberland .....	.....	.....	.....	.....	.....	.....
Essex	43,014 17	8,516 44	\$3,565 70	2,930 53	6,050 83	69,077 77
Gloucester .....	.....	.....	.....	.....	.....	.....
Hudson	62,670 11	4,968 70	2,451 54	579 31	4,603 63	75,593 29
Hunterdon .....	.....	.....	.....	.....	.....	.....
Mercer .....	.....	.....	.....	.....	.....	.....
Middlesex .....	.....	.....	.....	.....	.....	.....
Monmouth	3,904 16	772 61	1,047 63	73 08	1,063 00	6,864 48
Morris .....	.....	.....	.....	.....	.....	.....
Ocean .....	.....	.....	.....	.....	.....	.....
Passaic	9,483 45	1,350 96	212 44	107 86	.....	11,159 69
Salem .....	.....	.....	.....	.....	.....	.....
Somerset .....	.....	.....	.....	.....	.....	.....
Sussex	5,493 93	1,353 37	38 46	.....	173 56	7,064 33
Union .....	.....	.....	.....	.....	.....	.....
Warren .....	.....	.....	.....	.....	.....	.....
Total	\$150,325 82	\$21,496 65	\$7,315 82	\$5,391 13	\$11,890 07	\$196,418 49

TABLE 4—Continued
VOCATIONAL SCHOOL FUNDS.
PAYMENTS.

COUNTIES.	EVENING SCHOOLS.						Total Expenditures Day and Evening Vocational Schools.	Balance in Vocational School Account at Close of Year.	Grand Total of Expenditures During the Year and Balance on Hand Close of Year.
	Salaries of Supervisors, Principals and Teachers and Amount Paid to State Treasurer for Retirement Fund.	Material and Supplies.	Repairs and Replacements.	New Equipment.	All Other Expense Incident to Vocational Schools.	Total Expenditures During the Year for Vocational Evening Schools.			
Atlantic	\$276 00	.....	.....	.....	.....	\$276 00	\$36,653 94	\$1,721 11	\$38,380 05
Bergen .....	.....	.....	.....	.....	.....	.....	276 00	177 31	453 31
Burlington .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Camden .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cape May .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Essex	20,932 00	\$1,770 80	\$536 13	\$161 73	\$2,590 29	36,990 96	106,063 72	71 14	71 14
Gloucester .....	.....	.....	.....	.....	.....	.....	.....	159 96	106,223 70
Hudson	10,418 00	1,153 39	.....	.....	1,997 75	12,574 64	89,167 93	2,749 36	91,917 29
Hunterdon .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mercer .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Middlesex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Monmouth .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Morris .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ocean .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Passaic	4,294 50	557 83	192 00	36 00	.....	5,079 33	16,329 02	.....	16,329 02
Salem .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sussex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Union .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Warren .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	\$45,920 50	\$2,457 53	\$728 13	\$196 73	\$5,583 04	\$55,920 92	\$352,329 41	\$10,647 60	\$362,967 01

TABLE 5
COUNTY VOCATIONAL SCHOOL FUNDS
RECEIPTS

COUNTIES.	From State Appropriation.	From District Tax for Vocational Schools.	From All Other Sources for Vocational Schools.	Total Receipts During the Year.	Balance on Hand Beginning of Year.	Grand Total Receipts During the Year and Balances on Hand Beginning of Year.
Atlantic	\$8,000 00	\$3,356 87	\$11,356 87	\$9,683 86	\$21,040 73
Bergen
Burlington
Camden
Cape May	\$1,230 00	3,350 00	1,709 50	6,189 50	1,133 23	7,323 73
Cumberland
Essex
Gloucester	6,940 00	43,262 62	8,097 22	58,299 86	2,614 97	60,914 83
Hudson
Hunterdon
Mercer
Middlesex	23,085 09	14,135 13	37,220 13	4,040 76	41,260 93
Monmouth
Morris
Ocean
Passaic
Salem
Somerset
Sussex
Union
Warren
Total	\$8,170 00	\$77,597 62	\$37,298 73	\$112,066 40	\$17,472 80	\$129,539 20

The above figures are not included in summary report on page 24.

TABLE 5—Continued
COUNTY VOCATIONAL SCHOOL FUNDS
PAYMENTS

COUNTIES.	DAY SCHOOLS.						Balance on Hand Close Year.	Grand Total Expenditures and Balance on Hand Close of Year.
	Salaries of Supervisors, Principals and Teachers and Amount Paid to Treasurer for Retirement Fund.	Material and Supplies.	Repairs and Replacements.	New Equipment.	All Other Expense Incident to Vocational Schools.	Total Expenditures During the Year for County Vocational Day Schools.		
Atlantic	\$8,603 73	\$104 11	\$8 83	\$14 00	\$4,516 94	\$13,246 61	\$7,794 11	\$21,040 73
Bergen .....	.....	.....	.....	.....	.....	.....	.....	.....
Burlington .....	.....	.....	.....	.....	.....	.....	.....	.....
Camden .....	.....	.....	.....	.....	.....	.....	.....	.....
Cape May	4,901 21	526 67	.....	236 71	1,297 23	6,960 81	361 92	7,322 73
Cumberland .....	.....	.....	.....	.....	.....	.....	.....	.....
Essex	22,990 94	5,823 91	643 95	9,832 29	21,624 73	60,914 82	.....	60,914 82
Gloucester .....	.....	.....	.....	.....	.....	.....	.....	.....
Hudson .....	.....	.....	.....	.....	.....	.....	.....	.....
Hunterdon .....	.....	.....	.....	.....	.....	.....	.....	.....
Mercer .....	.....	.....	.....	.....	.....	.....	.....	.....
Middlesex	13,400 27	2,772 89	31 69	8,818 73	11,965 55	36,689 23	4,571 70	41,860 93
Monmouth .....	.....	.....	.....	.....	.....	.....	.....	.....
Morris .....	.....	.....	.....	.....	.....	.....	.....	.....
Ocean .....	.....	.....	.....	.....	.....	.....	.....	.....
Passaic .....	.....	.....	.....	.....	.....	.....	.....	.....
Salem .....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset .....	.....	.....	.....	.....	.....	.....	.....	.....
Sussex .....	.....	.....	.....	.....	.....	.....	.....	.....
Union .....	.....	.....	.....	.....	.....	.....	.....	.....
Warren .....	.....	.....	.....	.....	.....	.....	.....	.....
Total	\$49,896 26	\$9,226 53	\$933 47	\$13,901 73	\$39,104 44	\$117,811 47	\$12,737 73	\$130,539 20

TABLE 6
SCHOOL LIBRARIES AND APPARATUS FUNDS.

RECEIPTS.

COUNTIES.	RECEIPTS.					Balance on Hand Beginning of Year.	Grand Total Receipts During the Year and Balance on Hand Beginning of Year.
	From State Appropriation.	From District Taxes.	From All Other Sources for Library Purposes.	Total Receipts During the Year for Library Purposes.			
Atlantic	\$300 00	\$100 00	\$340 11	\$540 11	\$496 61	\$1,038 73	
Bergen	490 00	1,765 24	1,656 37	2,911 61	1,643 86	5,555 46	
Burlington	200 00	303 00	173 00	331 00	333 93	1,203 93	
Camden	170 00	73 01	143 50	391 51	367 83	1,349 34	
Cape May	300 00	304 01	54 24	658 25	467 11	1,125 36	
Cumberland	130 00	402 79	163 93	896 73	236 52	921 24	
Essex	430 00	10,227 13	123 77	10,780 90	708 06	11,488 96	
Gloucester	150 00	116 00	109 77	365 77	298 63	575 36	
Hudson	130 00	2,220 00	39 45	2,379 45	261 36	2,630 81	
Hunterdon	200 00	150 00	230 61	570 61	36 56	607 06	
Mercer	310 00	90 00	233 00	633 00	370 36	1,003 36	
Middlesex	300 00	425 00	130 13	905 13	133 43	1,037 60	
Monmouth	350 00	1,312 91	231 54	1,994 45	471 52	2,465 97	
Morris	350 00	60 00	343 77	753 77	373 97	1,127 74	
Ocean	340 00	230 00	212 36	782 36	192 01	974 37	
Passaic	155 06	263 00	211 23	619 29	300 63	979 91	
Salem	30 00	.....	77 66	107 66	97 26	304 91	
Somerset	130 00	30 00	239 09	399 09	139 65	538 74	
Sussex	160 00	75 00	120 50	355 50	80 36	435 86	
Union	130 00	315 00	86 96	530 96	307 65	838 61	
Warren	90 00	100 00	63 56	253 56	539 34	793 50	
Total	\$4,965 06	\$13,612 09	\$5,023 50	\$23,600 65	\$3,456 14	\$27,056 79	

TABLE 6—Continued
SCHOOL LIBRARIES AND APPARATUS FUNDS.

PAYMENTS.

COUNTIES.	PAYMENTS.						Grand Total Expenditures During the Year and Balance on Hand Close of Year.
	Salary of Librarian.	Library Books.	Apparatus.	Educational Works of Art.	Total Expenditures for Library Purposes.	Balance on Hand Close of Year.	
Atlantic .....	.....	\$416 10	\$71 26	\$47 94	\$635 29	\$503 43	\$1,038 72
Bergen	\$1,620 86	1,791 99	186 56	.....	3,699 39	1,956 07	6,555 46
Burlington	140 00	527 83	275 13	18 52	961 47	302 46	1,263 93
Camden .....	.....	267 76	242 06	.....	509 81	839 53	1,349 34
Cape May	40 00	453 83	139 80	.....	633 63	441 63	1,125 26
Cumberland	22 15	415 62	184 36	.....	676 72	244 52	921 24
Essex	5,890 56	4,445 08	146 50	54 60	10,572 64	916 31	11,488 95
Gloucester .....	.....	137 59	41 96	90 50	212 39	261 96	576 36
Hudson	1,200 00	947 36	.....	33 86	2,257 36	393 46	2,650 81
Hunterdon .....	.....	445 97	74 33	20 00	540 30	126 76	667 06
Mercer	36 00	300 79	319 55	17 80	674 24	394 12	1,068 36
Middlesex .....	.....	487 56	222 53	13 20	723 29	314 31	1,037 60
Monmouth	56 00	1,404 30	311 61	6 00	1,776 91	639 06	2,465 97
Morris .....	.....	246 14	213 17	53 74	518 06	624 69	1,142 74
Ocean .....	.....	479 12	39 45	80 78	649 36	325 02	974 37
Passaic .....	.....	265 86	237 47	203 43	696 76	293 16	979 91
Salem .....	.....	87 10	.....	.....	87 10	117 81	204 91
Somerset .....	.....	184 46	119 50	.....	373 96	254 78	528 74
Sussex .....	.....	201 80	148 26	.....	360 06	86 81	436 86
Union .....	.....	301 66	60 00	16 43	378 08	510 53	838 61
Warren .....	.....	148 10	183 76	117 93	454 79	343 71	798 50
Total	\$9,004 56	\$13,916 04	\$3,312 20	\$869 83	\$27,102 62	\$9,979 17	\$37,081 79

TABLE 7
REDEMPTION OF AND INTEREST ON BONDS FUND.

RECEIPTS.

COUNTIES.	From District Taxes for Redemption of Bonds.	From District Taxes for Interest on Bonds.	From District Taxes for Sinking Fund.	From Accrued Interest on Bond Issues.	Total Receipts During the Year for the Redemption of and Interest on Bonds.	Balance on Hand Beginning of Year.	Grand Total Receipts During the Year and Balance on Hand Beginning of Year.
Atlantic	\$27,750 00	\$24,480 53	\$19,127 94	\$1,637 30	\$132,995 66	\$6,920 36	\$139,916 02
Bergen	107,340 00	253,330 48	80,295 43	1,424 44	447,400 36	26,139 53	473,539 89
Burlington	26,187 67	26,119 39	4,196 86	13 06	56,516 96	6,361 44	62,877 40
Camden	106,944 00	98,399 18	54,153 83	.....	259,502 75	4,891 03	264,393 78
Cape May	19,585 00	20,784 32	6,384 84	2,972 50	49,726 66	1,208 79	50,935 45
Cumberland	14,600 00	19,399 25	8,939 04	96 75	43,036 04	19,508 73	53,543 77
Essex	64,275 01	669,961 84	210,916 10	45 00	945,197 45	3,063 93	948,260 38
Gloucester	20,513 23	19,519 39	2,025 77	.....	42,058 43	3,568 93	45,627 41
Hudson	208,905 53	433,756 63	58,345 53	.....	701,007 73	230 00	701,237 73
Hunterdon	7,800 00	10,721 68	58,356 91	.....	18,778 57	89 17	18,867 74
Mercer	21,080 00	95,943 13	21,810 39	.....	138,834 02	10,083 64	148,922 66
Middlesex	72,847 50	62,865 19	10,119 53	1,575 00	147,407 21	6,002 40	153,409 61
Monmouth	42,630 00	73,692 26	11,969 54	835 22	129,677 02	15,703 33	145,380 34
Morris	40,500 00	29,923 35	2,779 00	165 71	53,368 06	17,246 90	100,614 96
Ocean	13,470 50	9,003 33	.....	80 00	23,553 83	3,091 20	26,645 03
Passaic	178,800 00	147,463 03	33,905 86	.....	365,168 89	3,154 12	368,323 50
Salem	20,157 77	12,244 00	.....	636 61	33,038 38	6,806 09	39,843 47
Somerset	13,900 00	13,402 87	8,496 59	.....	45,796 46	7,191 92	52,988 38
Sussex	8,000 00	8,350 00	500 00	.....	18,850 00	170 50	17,020 50
Union	38,500 00	163,697 06	67,031 64	602 78	274,831 47	8,524 13	283,355 60
Warren	13,637 13	4,707 50	.....	905 85	19,300 53	913 70	20,214 23
Total	\$1,073,524 22	\$2,232,763 87	\$906,257 71	\$10,500 21	\$3,973,046 01	\$141,573 83	\$4,114,619 84

TABLE 7—Continued
REDEMPTION OF AND INTEREST ON BONDS FUND.

RECEIPTS.

COUNTIES.	RECEIPTS.					
	Redemption of Bonds by District Taxes.	Payments to Sinking Fund.	Interest on Bonds.	Total Expenditures During the Year.	Balance on Hand at Close of Year.	Grand Total Expenditures During the Year and Balance on Hand. Close of Year.
Atlantic	\$31,300 00	\$12,114 03	\$23,077 05	\$137,491 67	\$12,434 35	\$139,916 02
Bergen	100,000 00	78,915 45	253,264 23	446,239 73	27,250 10	473,539 83
Burlington	25,100 00	4,126 85	23,240 14	57,535 99	5,241 41	62,777 40
Camden	105,050 00	54,153 83	96,196 65	257,405 53	6,933 25	264,338 78
Cape May	19,700 00	6,593 93	23,364 40	50,773 23	13,040 49	63,813 72
Cumberland	12,600 00	8,659 53	12,243 75	40,503 23	3,939 34	44,442 57
Essex	63,975 01	210,916 10	699,429 95	944,321 04	7,471 43	951,792 47
Gloucester	13,206 06	1,333 49	13,116 73	26,155 93	25 00	26,180 93
Hudson	208,905 53	32,670 52	409,636 63	701,212 73	596 11	701,808 84
Hunterdon	7,300 00	.....	10,471 63	18,271 63	12,136 11	30,407 74
Mercer	19,930 00	21,810 39	96,043 06	136,784 55	7,004 23	143,788 78
Middlesex	31,300 00	13,369 35	101,735 94	146,405 29	30,572 43	176,977 72
Monmouth	44,100 00	3,984 39	71,753 02	124,837 91	17,239 09	142,076 00
Morris	27,500 00	2,779 09	43,046 37	73,325 37	5,899 45	79,224 82
Ocean	13,300 00	.....	6,745 63	20,045 63	22,703 77	42,749 40
Passaic	154,000 00	33,031 47	143,537 36	330,568 83	5,451 97	336,020 80
Salem	23,000 00	.....	12,301 50	34,301 50	6,437 24	40,738 74
Somerset	20,900 00	8,495 59	17,157 55	46,553 14	1,145 50	47,698 64
Sussex	8,000 00	500 00	8,375 00	16,875 00	13,261 43	30,136 43
Union	23,500 00	35,203 95	168,235 17	270,044 12	2,549 83	272,593 95
Warren	7,325 00	.....	19,239 40	17,004 40	.....	17,004 40
Total	\$1,000,172 35	\$630,307 51	\$2,294,053 24	\$3,914,533 60	\$300,336 84	\$4,214,870 44

TABLE 8

RECEIPTS FOR PAYMENTS OF AND INTEREST ON NOTES AUTHORIZED BY A VOTE OF THE DISTRICT, OR OTHER EVIDENCES OF INDEBTEDNESS (EXCLUSIVE OF BONDS).

COUNTIES.	From District Taxes for Notes Authorized by a Vote of the District or Other Evidences of Indebtedness.		From District Taxes for Interest on Notes Authorized by a Vote of the District or Other Evidences of Indebtedness.		Total Receipts for the Payments of and Interest on Notes Authorized by a Vote of the District or Other Evidences of Indebtedness.		Balance on Hand Beginning of Year.		Grand Total Receipts During the Year and Balance on Hand Beginning of Year.	
	From District Taxes for Notes Authorized by a Vote of the District or Other Evidences of Indebtedness.	From District Taxes for Interest on Notes Authorized by a Vote of the District or Other Evidences of Indebtedness.	From District Taxes for Notes Authorized by a Vote of the District or Other Evidences of Indebtedness.	From District Taxes for Interest on Notes Authorized by a Vote of the District or Other Evidences of Indebtedness.	Total Receipts for the Payments of and Interest on Notes Authorized by a Vote of the District or Other Evidences of Indebtedness.	Total Receipts for the Payments of and Interest on Notes Authorized by a Vote of the District or Other Evidences of Indebtedness.	Balance on Hand Beginning of Year.	Balance on Hand Beginning of Year.	Grand Total Receipts During the Year and Balance on Hand Beginning of Year.	Grand Total Receipts During the Year and Balance on Hand Beginning of Year.
Atlantic	\$1,075 00	\$1,311 11	\$1,311 11	\$1,311 11	\$2,386 11	\$2,386 11	\$5 36	\$2,391 47	\$2,391 47	\$2,391 47
Bergen	19,268 15	839 03	839 03	839 03	20,108 18	20,108 18	1,753 36	21,861 53	21,861 53	21,861 53
Burlington	2,000 00	1,112 79	1,112 79	1,112 79	4,112 79	4,112 79	.....	4,112 79	4,112 79	4,112 79
Camden	5,870 00	86 94	86 94	86 94	6,956 94	6,956 94	.....	5,956 94	5,956 94	5,956 94
Cape May .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland	3,300 00	.....	.....	.....	3,300 00	3,300 00	.....	3,300 00	3,300 00	3,300 00
Essex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gloucester	5,700 00	369 41	369 41	369 41	6,069 41	6,069 41	700 00	6,769 41	6,769 41	6,769 41
Hudson .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hunterdon	4,400 00	1,080 00	1,080 00	1,080 00	5,480 00	5,480 00	.....	5,480 00	5,480 00	5,480 00
Mercer	2,500 00	34 00	34 00	34 00	2,534 00	2,534 00	.....	2,534 00	2,534 00	2,534 00
Middlesex	855 50	30 26	30 26	30 26	885 76	885 76	.....	885 76	885 76	885 76
Monmouth	6,700 00	550 50	550 50	550 50	7,250 50	7,250 50	45 00	7,295 50	7,295 50	7,295 50
Morris	14,750 00	512 50	512 50	512 50	15,262 50	15,262 50	103 47	15,365 97	15,365 97	15,365 97
Ocean .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Passaic	2,000 00	4,500 00	4,500 00	4,500 00	6,500 00	6,500 00	1,192 10	7,692 10	7,692 10	7,692 10
Salem	6,100 00	107 37	107 37	107 37	6,207 37	6,207 37	.....	6,207 37	6,207 37	6,207 37
Somerset	13,100 00	1,834 61	1,834 61	1,834 61	14,934 61	14,934 61	.....	14,934 61	14,934 61	14,934 61
Sussex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Union	9,121 83	1,707 16	1,707 16	1,707 16	10,829 04	10,829 04	536 14	11,475 18	11,475 18	11,475 18
Warren	2,150 00	.....	.....	.....	2,150 00	2,150 00	.....	2,150 00	2,150 00	2,150 00
Total	\$100,851 53	\$14,085 63	\$14,085 63	\$14,085 63	\$114,977 21	\$114,977 21	\$4,836 43	\$119,813 63	\$119,813 63	\$119,813 63

TABLE 8—Continued

PAYMENT OF AND INTEREST ON NOTES AUTHORIZED BY A VOTE OF THE DISTRICT,
OR OTHER EVIDENCES OF INDEBTEDNESS (EXCLUSIVE OF BONDS).

COUNTIES.	Payment of Notes, Authorized by a Vote of the District, or Other Evidences of Indebtedness.		Interest on Notes, Authorized by a Vote of the District, or Other Evidences of Indebtedness.		Total Expenditures During the Year.	Balance on Hand Close of Year.	Total Expenditures During the Year and Balance on Hand Close of Year.
Atlantic	\$1,075 00	\$1,312 88	\$2,387 88	\$3 59	\$2,391 47		
Bergen	20,744 15	854 21	21,598 36	263 17	21,861 53		
Burlington	3,000 00	1,025 29	4,025 29	87 50	4,112 79		
Camden	5,870 00	86 94	5,956 94		5,956 94		
Cape May							
Cumberland	3,300 00		3,300 00		3,300 00		
Essex							
Gloucester	6,400 00	369 41	6,769 41		6,769 41		
Hudson							
Hunterdon	4,400 00	380 00	5,280 00	150 00	5,430 00		
Mercer	2,500 00	83 99	2,583 99	1 01	2,584 00		
Middlesex	855 50	30 26	885 76		885 76		
Monmouth	6,700 00	513 00	7,213 00	82 50	7,295 50		
Morris	13,750 00	411 11	14,161 11	1,204 86	15,365 97		
Ocean							
Passaic	2,000 00	4,683 63	6,683 63	1,006 43	7,690 06		
Salem	6,100 00	107 37	6,207 37		6,207 37		
Somerset	13,100 00	1,834 61	14,934 61		14,934 61		
Sussex							
Union	9,181 83	1,793 95	10,974 33	500 26	11,475 13		
Warren	3,150 00		3,150 00		3,150 00		
Total	\$102,126 53	\$13,934 70	\$116,061 23	\$3,201 40	\$119,262 63		

TABLE 10

BUILDING, LEASING, ENLARGING, ALTERING, REPAIRING, IMPROVING, FURNISHING
AND EQUIPPING SCHOOL BUILDINGS.

COUNTIES.	RECEIPTS.					
	From District Taxes.	From Sale of Bonds.	From Sale of Build- ings.	From Sale of Furni- ture and Equip- ment.	From Sale of Land.	From Fire Insur- ance.
Atlantic	249,250 25	.....	.....	.....	.....	.....
Bergen	97,733 39	\$214,409 24	2303 61	230 50	.....	\$7,343 51
Burlington	24,216 33	9,000 00	956 03	155 75	.....	11 02
Camden	60,524 93	17,514 00	.....	103 78	\$150 00	.....
Cape May	18,590 46	3,223 50	15 00	.....	.....	25 00
Cumberland	21,947 02	7,537 50	.....	20 00	.....	.....
Essex	401,408 17	.....	.....	7 60	.....	679 03
Gloucester	21,413 40	500 00	.....	123 10	.....	361 29
Hudson	574,339 57	86,100 00	2,559 14	23 60	.....	.....
Hunterdon	5,191 33	3,000 00	2,005 00	12,757 32	24,500 00	1,167 05
Mercer	60,300 00	42,000 00	.....	8 00	.....	.....
Middlesex	45,809 29	119,764 21	.....	120 13	.....	.....
Monmouth	41,619 24	.....	123 97	16 50	.....	650 00
Morris	52,126 33	10,000 00	347 50	1 00	.....	45 00
Ocean	8,221 15	.....	679 00	.....	.....	63 50
Passaic	64,441 25	71,367 45	252 50	8 30	.....	.....
Salem	16,285 33	.....	1,200 00	40 50	.....	8 30
Somerset	16,674 40	21,400 00	2,203 50	.....	.....	1,100 00
Sussex	9,247 45	.....	.....	116 00	1,450 00	.....
Union	38,003 91	30,000 00	230 60	23 00	.....	.....
Warren	11,050 00	.....	333 25	963 03	2,000 00	4,315 51
Total	\$1,690,517 65	\$942,325 10	\$11,853 63	\$14,577 11	\$29,100 00	\$16,375 51

TABLE 9
PURCHASE OF LAND.

COUNTIES.	RECEIPTS.					PAYMENTS.			For Land—Total Expenditure During the Year and Balance on Hand at Close of Year.
	From District Tax of Land.	From Sale of Bonds, for Purchase of Land.	Total Receipts During the Year.	Balance on Hand Beginning of Year.	Total Receipts During the Year and Balance on Hand Beginning of Year.	For Purchase of Land.	Balance on Hand at Close of Year.		
Atlantic	\$6,729 84	\$6,000 00	\$10,729 84	\$963 26	\$963 26	.....	\$963 26	\$963 26
Bergen	860 00	.....	860 00	53 78	10,783 62	\$10,729 84	53 78	10,783 62
Burlington .....	.....	.....	.....	.....	860 00	860 00	.....	860 00
Camden .....	.....	.....	.....	23 83	23 83	.....	23 83	23 83
Cape May .....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland	3,500 00	.....	3,500 00	23 34	3,523 34	3,500 00	23 34	3,523 34
Essex	5,219 00	.....	5,219 00	65,226 09	70,444 09	16,086 47	54,348 62	70,444 09
Gloucester .....	.....	.....	.....	.....	.....	.....	.....	.....
Hudson	129,637 61	102,737 00	232,375 21	18,003 16	250,978 37	166,148 07	84,830 30	250,978 37	
Hunterdon .....	.....	.....	.....	.....	.....	.....	.....	.....
Mercer .....	.....	6,500 00	6,500 00	5,537 77	12,037 77	3,344 99	3,092 87	12,037 77
Middlesex	5,005 59	.....	5,005 59	.....	5,005 59	1,755 59	3,250 00	5,005 59
Monmouth	2,700 00	.....	2,700 00	.....	2,700 00	2,700 00	.....	2,700 00
Morris	600 00	.....	600 00	.....	600 00	600 00	.....	600 00
Ocean .....	.....	.....	.....	.....	.....	.....	.....	.....
Passaic	4,086 53	.....	4,086 53	524 21	4,559 74	4,035 53	524 21	4,559 74
Salem .....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset .....	.....	400 00	400 00	.....	400 80	400 00	80	400 80
Sussex .....	.....	.....	.....	14 76	14 76	.....	14 76	14 76
Union	1,250 00	5,000 00	6,250 00	11,232 57	17,532 57	7,391 16	10,141 41	17,532 57	
Warren .....	.....	.....	.....	156 71	156 71	156 71	.....	156 71
Total	\$158,527 57	\$119,637 00	\$278,165 17	\$102,409 27	\$380,574 44	\$232,707 27	\$157,867 17	\$380,574 44	

TABLE 10—Continued

**BUILDING, LEASING, ENLARGING, ALTERING, REPAIRING, IMPROVING, FURNISHING
AND EQUIPPING SCHOOL BUILDINGS.**

COUNTIES.	RECEIPTS.				
	From Interest on Deposits.	From All Other Sources for Above Purposes.	Total Receipts Dur- ing the Year for Above Purposes.	Balance on Hand Beginning of Year for Building, Less- ing, etc.	Total Receipts Dur- ing the Year and Balance on Hand Beginning of Year for Building, Less- ing, etc.
Atlantic	326 51	3,853 22	3,406 69	240,000 71	247,408 22
Bergen	2,671 96	17,402 75	341,975 12	245,002 00	326,678 23
Burlington	326 20	1,022 82	26,469 22	41,002 13	77,511 34
Camden	304 14	146 21	79,529 00	26,607 22	114,206 26
Cape May	25 22	1 46	21,204 25	6,202 00	28,397 64
Cumberland .....	.....	65 80	20,226 05	5,728 00	25,954 04
Essex	12,792 24	55,164 83	470,911 00	694,918 27	1,165,829 05
Gloucester	204 22	422,623 00	1,151,511 29	22,123 54	1,173,634 83
.....	10,519 43	422,623 00	10,000 12	11,737 24	22,230 47
.....	.....	2,500 22	111,400 45	55,573 26	166,973 71
.....	443 10	19,807 26	106,780 00	204,627 00	391,607 00
.....	.....	1,626 00	43,626 00	107,000 42	151,506 20
.....	1,202 22	126 75	64,853 26	75,124 25	140,977 03
.....	.....	123 00	2,000 00	2,200 45	14,972 00
.....	172 42	4,223 12	142,679 50	22,204 21	164,883 71
.....	.....	5,574 74	15,223 02	6,240 97	21,505 00
.....	.....	2,045 20	41,026 00	4,000 75	45,526 75
.....	.....	112 11	10,000 12	22,425 00	32,525 12
.....	.....	2,442 46	129,150 72	174,200 22	214,120 10
Warren	2,000 22	1,721 14	15,223 40	40,126 53	55,519 05
Total	204,100 21	803,470 21	32,004,020 02	22,454,267 02	55,458,808 24

TABLE 10—Continued

BUILDING, LEASING, ENLARGING, ALTERING, REPAIRING, IMPROVING, FURNISHING
AND EQUIPPING SCHOOL BUILDINGS.

COUNTIES.	PAYMENTS.									
	Building and En- larging School Buildings.	Extraordinary Re- pairs Improving School Buildings.	Ordinary Repairs (Current Upkeep).	New Furniture and Equipment.	Repairs and Re- placement of Fur- niture and Equip- ment.	Leasing School Buildings.	Total Expenditures During the Year.	Balance on Hand at Close of Year.	Total Expense Dur- ing the Year and Balance on Hand at Close of Year.	
Atlantic	35,563 96	3210 00	316,198 52	3395 53	329,494 31	3245 00	352,606 33	34,393 83	357,499 20	
Bergen	312,905 30	31,849 41	60,450 31	67,423 36	14,464 09	213 54	483,311 51	138,306 30	626,678 31	
Burlington	46,416 75	5,390 27	11,111 29	6,402 96	4,177 02	323 30	73,321 50	3,890 44	77,511 94	
Camden	43,537 50	7,294 86	27,231 65	7,339 60	3,631 23	1,407 80	94,432 64	20,464 26	114,896 90	
Cape May	8,683 86	.....	5,742 83	5,487 76	1,914 71	64 00	21,892 66	6,354 98	28,247 64	
Cumberland	1,080 10	13,395 50	13,570 86	.....	4,197 43	.....	32,396 77	3,097 87	35,964 64	
Essex	113,596 53	97,537 09	187,267 10	41,465 41	23,554 55	963 73	464,784 30	701,045 66	1,165,839 96	
Gloucester	50 30	7,140 89	7,103 95	3,726 59	3,756 54	2,238 50	24,017 27	22,474 84	46,492 11	
Hudson	731,895 08	78,663 31	230,882 98	23,410 59	28,469 00	2,387 50	1,085,713 46	651,559 57	1,737,273 03	
Hunterdon	12,319 29	694 23	3,603 06	1,859 66	583 26	.....	20,049 62	2,280 85	22,330 47	
Mercer	90,793 75	8,295 99	40,338 40	9,691 23	6,101 06	3,969 38	159,753 31	40,313 93	199,972 73	
Middlesex	107,394 74	143,641 21	29,933 63	7,668 24	5,422 04	300 00	294,864 86	96,742 23	391,607 09	
Monmouth	59,579 02	8,363 64	24,085 67	5,210 45	11,372 61	935 00	140,346 39	11,252 90	151,599 29	
Morris	44,419 23	26,312 99	20,315 77	26,668 06	8,679 03	902 20	126,197 28	13,890 34	140,077 63	
Ocean .....	.....	34 13	6,134 53	302 20	2,261 82	850 00	9,573 68	5,400 23	14,973 00	
Passaic	83,123 51	6,300 63	40,609 13	5,890 19	6,622 10	3,500 00	146,520 86	20,143 15	166,664 01	
Salem	10,373 49	4,133 17	8,333 07	2,586 14	2,619 68	1,089 00	29,529 55	1,979 04	31,508 59	
Somerset	17,863 54	670 00	12,745 50	2,065 37	2,656 38	526 55	36,534 24	16,001 10	46,535 44	
Sussex	21,373 34	3,277 24	2,819 68	1,187 38	849 57	870 00	30,393 11	3,204 13	33,596 24	
Union	99,194 32	8,493 87	29,543 67	7,627 91	35,427 02	4,115 86	184,392 65	129,727 45	314,120 10	
Warren	22,253 65	2,803 09	6,236 14	3,182 80	2,850 91	1,150 00	37,421 60	18,036 33	55,519 93	
Total	\$1,864,124 16	\$454,677 43	\$775,400 67	\$230,709 21	\$204,094 36	\$35,071 36	\$3,554,077 18	\$1,904,811 06	\$5,458,888 24	

TABLE II
OUTHOUSES AND WATER CLOSETS.

COUNTIES.	RECEIPTS.	PAYMENTS.		
	From District Tax and Other Sources for Out-houses and Water Closets, Including Balance from Beginning of Year.	For Outhouses and Water Closets.	Balance on Hand at Close of Year.	Total Expenditures During the Year and Balance on Hand Close of Year.
Atlantic	\$17 58	\$17 58		\$17 58
Bergen	439 61	154 68	\$284 93	439 61
Burlington				
Camden				
Cape May	47 07	47 07		47 07
Cumberland	724 50		724 50	724 50
Essex				
Gloucester	40 00	40 00		40 00
Hudson				
Hunterdon	645 06	376 90	268 15	645 06
Mercer	85 50		85 50	85 50
Middlesex				
Monmouth				
Morris				
Ocean	273 76	17 00	256 76	273 76
Passaic				
Salem				
Somerset	366 59		366 59	366 59
Sussex	25 00	25 00		25 00
Union				
Warren	97 40		97 40	97 40
Total	\$2,762 06	\$678 23	\$2,083 83	\$2,762 06

TABLE 12

SUMMARY OF RECEIPTS AND EXPENDITURES.

COUNTIES.	Grand Total of All Receipts During the Year and Balances on Hand Begin- ning of Year.	Grand Total of All Expen- ditures During the Year.	Grand Total of All Balances on Hand at Close of Year.	Grand Total of Expendi- tures During the Year and Balances on Hand Close of Year.
Atlantic	\$1,000,438 21	\$1,022,275 18	\$27,152 21	22 21
Bergen	2,505,208 96	2,098,627 23	504,782 74	506 96
Burlington	805,615 19	804,522 20	34,111 20	115 19
Camden	1,712,754 12	1,629,276 12	79,508 01	74 12
Cape May	261,768 21	226,072 22	25,694 48	25 21
Cumberland	573,097 27	502,612 26	69,535 02	97 27
Essex	5,792,970 20	7,575,250 27	1,222,720 62	726 20
Gloucester	522,120 26	442,122 54	79,941 72	26 26
Hudson	5,251,765 97	7,271,262 89	2,000,401 18	95 97
Hunterdon	226,670 22	215,171 22	21,499 00	170 22
Mercer	1,501,222 20	1,226,224 24	114,407 96	222 20
Middlesex	1,842,295 22	1,907,127 62	225,256 11	225 22
Monmouth	1,411,122 61	1,251,245 59	159,784 02	22 61
Morris	1,006,768 26	916,452 22	92,284 00	786 26
Ocean	205,107 10	242,072 65	62,004 25	107 10
Passaic	2,504,489 04	2,292,617 97	110,851 07	2,504,489 04
Salem	202,209 42	250,997 07	41,212 25	202,209 42
Somerset	524,965 62	485,066 10	44,299 52	524,965 62
Sussex	222,412 77	225,547 49	52,865 28	222,412 77
Union	2,299,572 28	2,112,245 20	290,027 97	2,299,572 28
Warren	447,726 40	221,222 09	65,212 71	447,726 40
Total	\$22,506,021 57	\$24,245,965 14	\$4,220,056 72	\$22,506,021 57

TABLE 13
COST OF EDUCATION.

COUNTIES.	Administration.					Instruction.		Operation of School Plant.		Maintenance of School Plant.		Expenses of Auxiliary Agencies.		Miscellaneous Expenses.
Atlantic	\$34,040 96	\$639,308 03	\$108,559 91	\$54,073 94	\$45,248 76	\$23,156 86								
Bergen	62,316 36	1,490,417 31	280,954 34	133,997 50	71,664 97	97,614 31								
Burlington	13,780 97	340,532 50	59,066 09	28,402 12	74,842 98	36,002 62								
Camden	42,930 86	948,636 94	193,033 96	52,186 02	31,477 94	56,208 22								
Cape May	14,529 02	162,416 86	31,964 60	12,963 87	24,313 56	15,063 76								
Cumberland	16,147 28	303,190 67	48,150 04	21,308 89	35,434 40	12,989 20								
Essex	262,837 45	4,700,024 42	687,526 34	244,931 38	144,137 87	66,826 97								
Gloucester	7,263 11	247,532 38	43,724 96	26,548 62	33,663 17	36,146 44								
Hudson	221,896 53	4,153,030 77	632,307 26	302,756 20	102,563 98	163,236 89								
Hunterdon	7,365 27	166,846 54	23,788 92	17,020 26	34,252 61	26,086 28								
Mercer	37,839 32	802,411 76	126,539 14	54,326 51	49,796 89	26,178 30								
Middlesex	37,178 31	844,186 83	148,023 83	47,967 80	57,101 70	64,229 61								
Monmouth	39,574 12	683,927 26	121,839 68	44,973 49	65,953 06	55,099 03								
Morris	18,224 80	473,660 83	83,351 72	30,875 55	61,546 45	26,194 52								
Ocean	4,997 28	141,330 80	22,291 76	10,641 62	31,528 78	10,664 66								
Passaic	63,013 44	1,535,802 36	212,700 60	59,496 53	28,983 63	26,747 66								
Salem	7,536 02	189,998 39	31,519 67	13,762 06	31,642 09	18,676 61								
Somerset	13,790 54	269,968 16	43,449 63	18,350 24	28,856 31	26,826 28								
Sumsex	6,550 28	149,894 43	17,869 21	5,268 86	43,191 86	21,278 88								
Union	70,046 30	1,267,723 91	219,344 23	84,726 78	26,487 27	83,942 91								
Warren	11,943 12	206,937 86	37,186 23	11,909 28	42,120 91	20,968 46								
Total	\$991,359 45	\$19,706,333 50	\$3,223,731 14	\$1,368,542 79	\$1,066,199 69	\$910,146 47								

TABLE 13—Continued
COST OF EDUCATION.

COUNTIES.	Grand Total Operating Ex- penses.	Total Number of Pupils Enrolled in the District, Plus Those Living in the District, but Attending School in Other Districts.	Average Daily Attendance of Pupils Attending School in the District, Plus Those Living in the District, but Attending School in Other Districts.	Cost of Education Per Pupil Based on	
				Total Enrollment.	Average Daily At- tendance.
Atlantic	\$339,283 45	17,113	12,328	\$61 37	\$71 30
Bergen	2,124,965 28	47,310	36,431	45 36	53 65
Burlington	552,647 28	15,444	10,704	33 95	43 98
Camden	1,324,463 94	33,398	23,579	38 68	54 73
Cape May	361,236 16	5,004	3,385	50 33	75 17
Cumberland	437,220 43	12,919	9,855	33 31	43 53
Essex	6,105,273 44	119,119	92,730	51 20	65 77
Gloucester	393,266 70	10,442	6,955	34 36	53 50
Hudson	5,636,840 77	99,920	79,491	55 94	70 33
Hanterdon	275,309 47	6,417	4,346	33 60	57 00
Mercer	1,105,633 92	26,236	18,778	43 51	53 37
Middlesex	1,133,717 53	30,524	23,296	37 30	43 75
Monmouth	1,010,366 65	24,223	17,762	39 78	54 25
Morris	703,363 38	16,213	12,225	41 59	55 17
Ocean	231,454 90	5,233	3,805	40 36	56 30
Passaic	1,924,743 67	46,310	37,137	41 09	51 24
Salem	293,083 84	9,110	6,207	30 37	44 53
Somerset	400,935 16	10,214	7,490	36 36	50 37
Sussex	243,053 11	5,506	3,772	40 36	59 77
Union	1,752,273 00	34,144	26,921	51 00	64 69
Warren	332,175 36	8,983	7,021	34 31	44 63
Total	\$37,173,312 04	582,635	444,216	.....	.....

TABLE 14
STATEMENT OF BONDED DEBT.

TABLE 15

SCHOOL BUILDINGS OWNED AND RENTED.

COUNTIES.	SINKING FUND.	VALUE OF PROPERTY.				BUILDINGS.												Total Number of Pupils' Seats. (Double Desk Count Two).	Is Flag Displayed Daily?
		Land.	Buildings.	Equipment.	Total Value.	Number Completed During Current Year.	Number Enlarged or Remodeled During Current Year.	Number of One-Room Buildings.	Number of Two-Room Buildings.	Number of Three-Room Buildings.	Number of Four-Room Buildings.	Number of Five or More Room Buildings.	Total Number of School Buildings Owned.	Total Number of School Buildings Rented.	Total Number of Class Rooms.				
Atlantic	\$322,907 89	\$800,450 00	\$1,953,663 75	\$202,213 24	\$2,761,437 09	1	...	22	18	4	6	23	23	2	508	13,993	Yes		
Bergen	197,507 54	887,000 00	6,052,303 00	522,874 00	7,462,177 00	5	4	23	15	9	26	39	39	2	1,737	45,875	Yes		
Burlington	30,659 76	106,210 00	1,216,570 00	164,370 00	1,487,250 00	2	6	43	19	9	11	27	27	2	400	15,427	Yes		
Camden	54,153 88	348,100 00	2,232,690 78	221,559 06	2,463,349 84	1	...	30	24	9	12	57	57	6	877	32,801	Yes		
Cape May	44,864 89	90,500 00	612,975 00	68,614 00	772,089 00	...	...	14	19	2	3	15	15	1	203	6,399	Yes
Cumberland	2,832 28	97,500 00	812,275 00	91,000 00	1,001,775 00	...	...	26	16	6	8	24	24	...	235	14,207	Yes
Essex	732,327 08	2,965,717 12	16,232,222 61	1,221,615 97	20,580,655 80	...	1	10	11	4	9	145	13	...	2,956	112,932	Yes		
Gloucester	5,420 00	85,701 25	616,755 06	58,175 00	760,631 31	...	...	22	22	1	12	13	70	11	268	10,544	Yes
Hudson	42,145 63	2,737,043 91	12,821,249 42	1,497,759 15	18,046,057 48	...	2	1	2	...	2	115	113	2	2,208	100,945	Yes		
Hunterdon .....	...	29,460 00	460,297 75	40,077 25	529,835 00	2	...	70	8	...	6	8	94	...	200	7,222	Yes	
Mercer	262,969 11	215,225 00	2,269,222 00	286,757 00	2,871,420 00	...	...	14	7	1	22	29	31	...	608	21,467	Yes
Middlesex .....	...	439,707 00	2,625,523 00	232,855 00	3,454,100 00	...	3	27	11	3	13	51	105	...	709	28,404	Yes	
Monmouth	70,978 55	301,675 00	2,692,390 00	217,605 00	3,211,590 00	...	2	27	32	3	14	45	145	...	664	25,043	Yes		
Morris	2,779 00	196,423 00	1,657,472 73	151,121 22	2,005,017 05	1	...	44	26	3	20	26	114	3	429	15,943	Yes		
Ocean .....	...	64,592 00	243,375 00	82,320 00	495,287 00	1	...	23	17	3	2	9	65	4	189	6,097	Yes	
Passaic	1,312 19	953,931 55	4,849,190 22	461,077 00	6,267,249 33	1	1	14	8	4	3	62	99	1	1,047	43,803	Yes		
Salem .....	...	74,690 00	463,700 00	43,975 00	592,368 00	...	2	46	6	6	5	12	64	12	237	8,288	Yes	
Somerset	10,679 20	121,225 00	909,150 00	103,152 40	1,124,237 40	...	...	46	10	3	4	16	73	1	265	9,699	Yes
Sussex	2,972 89	21,400 00	262,225 00	50,100 00	424,225 00	...	...	71	6	1	2	8	26	2	175	6,685	Yes
Union	269,965 21	594,275 00	4,420,032 29	472,444 02	5,497,751 41	1	...	24	19	...	5	69	96	6	608	31,724	Yes		
Warren .....	...	54,753 29	615,475 00	81,614 00	751,842 29	1	...	53	19	...	4	12	38	3	257	9,423	Yes	
Total	\$3,120,621 75	\$11,129,554 12	\$93,037,495 22	\$6,493,332 61	\$113,530,432 05	19	18	709	302	68	208	831	2097	68	15,016	570,061	Yes		

TABLE 16
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	SUPERINTENDENTS.				ASSISTANT SUPERINTENDENTS.										
	(An Assistant Superintendent is one who stands in very intimate relation to the Superintendent, and whose duties are mainly connected with supervision of instruction and with general oversight of a system under the direction of the Superintendent).														
	Annual Salary.	Women.	Men.	Average—Men.	Number Employed—Men.	Number Employed—Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	\$6,650 00	2	1	\$3,325 00	1	1	2	.....	.....	.....	.....	.....	.....	.....	.....
Bergen	2,750 00	1	1	3,750 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Burlington	1,900 00	1	1	1,900 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Camden	6,400 00	2	2	3,200 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cape May	5,000 00	2	2	2,500 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland	5,150 00	2	2	2,575 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Essex	20,070 00	6	6	5,011 67	6	6	12	\$24,550 00	.....	\$2,300 00	.....	.....	\$4,500 00	.....	\$4,091 67
Gloucester	33,775 00	7	7	4,825 00	1	1	2	5,000 00	.....	5,000 00	.....	.....	5,000 00	.....	5,000 00
Hudson .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hunterdon .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mercer	4,500 00	1	1	4,500 00	.....	1	1	.....	\$1,600 00	.....	.....	.....	.....	.....	\$1,600 00
Middlesex	10,400 00	3	3	3,466 66	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Monmouth	7,300 00	2	2	3,650 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Morris .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ocean .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Passaic	12,000 00	3	3	4,000 00	.....	1	1	.....	2,400 00	.....	.....	.....	2,400 00	.....	2,400 00
Salem	2,500 00	1	1	2,500 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sussex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Union	16,700 00	4	4	4,175 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Warren	2,750 00	1	1	2,750 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	\$149,845 00	33	33	\$3,943 29	7	2	9	\$29,550 00	\$4,000 00	\$2,300 00	\$1,000 00	\$5,000 00	\$2,400 00	\$4,221 43	\$2,000 00

TABLE 16—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES	NUMBER EMPLOYED.			APPROVED SUPERVISING PRINCIPALS. Consider only those for whom an apportionment of \$800.00 is made. Where a Supervising Principal is employed by two school districts enter as one-half in each district. If employed by three districts enter as one-third in each district.							
	Men.	Women.	Total	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	8	1	9	\$6,150 00	\$2,700 00	\$1,800 00	\$2,700 00	\$2,350 00	\$2,700 00	\$2,050 00	\$2,700 00
Bergen	8	1	9	20,750 00	1,800 00	1,350 00	1,800 00	3,750 00	1,300 00	2,593 75	1,800 00
Burlington	3	1	4	8,225 00	.....	1,925 00	1,800 00	2,500 00	.....	2,741 67	.....
Camden	4	.....	4	6,412 00	.....	1,350 00	.....	1,900 00	.....	1,603 00	.....
Cape May	2	.....	2	4,115 00	.....	1,700 00	.....	2,415 00	.....	2,057 50	.....
Cumberland	1	.....	1	2,200 00	.....	2,200 00	.....	2,200 00	.....	2,200 00	.....
Essex	6	.....	6	20,850 00	.....	2,850 00	.....	4,000 00	.....	3,475 00	.....
Gloucester	3	1	4	5,500 00	1,400 00	1,400 00	1,400 00	2,600 00	1,400 00	1,833 33	1,400 00
Hudson .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hunterdon	1	.....	1	1,920 00	.....	1,920 00	.....	1,920 00	.....	1,920 00	.....
Mercer	3	.....	3	6,060 00	.....	1,800 00	.....	2,400 00	.....	2,020 00	.....
Middlesex	8	1	9	16,700 00	2,900 00	1,650 00	2,900 00	3,100 00	2,900 00	2,057 50	2,900 00
Monmouth	6	.....	6	9,810 00	.....	1,200 00	.....	2,250 00	.....	1,635 00	.....
Morris	11	.....	11	17,220 00	.....	1,000 00	.....	2,200 00	.....	1,571 81	.....
Ocean	4	.....	4	6,050 00	.....	1,000 00	.....	2,700 00	.....	1,512 20	.....
Passaic	5	.....	5	7,600 00	.....	1,100 00	.....	2,000 00	.....	1,530 00	.....
Salem	1	.....	1	2,160 00	.....	2,160 00	.....	2,160 00	.....	2,160 00	.....
Somerset	2	.....	2	5,350 00	.....	1,550 00	.....	3,800 00	.....	2,675 00	.....
Sussex	1	.....	1	1,700 00	.....	1,700 00	.....	1,700 00	.....	1,700 00	.....
Union .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Warren	2	.....	2	3,300 00	.....	1,900 00	.....	1,900 00	.....	1,900 00	.....
Total	74	4	78	\$152,642 00	\$8,800 00	\$1,000 00	\$1,400 00	\$4,000 00	\$2,900 00	\$2,062 73	\$2,215 00

TABLE 16—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			UNAPPROVED SUPERVISING PRINCIPALS. (Those who devote their time to administration and supervision of instruction of a group of schools).							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	1	1	1	\$1,300 00	.....	\$1,800 00	.....	\$1,800 00	.....	\$1,800 00	.....
Bergen	15	1	16	\$2,975 00	\$1,500 00	1,500 00	\$1,500 00	3,000 00	\$1,500 00	2,198 33	\$1,500 00
Burlington	4	3	7	6,750 00	3,150 00	1,450 00	1,000 00	1,900 00	1,000 00	1,687 50	1,050 00
Camden	4	.....	4	8,850 00	.....	1,800 00	.....	2,750 00	.....	2,212 50	.....
Cape May .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Essex	2	.....	2	6,200 00	.....	2,800 00	.....	2,500 00	.....	3,150 00	.....
Gloucester	3	.....	3	6,538 72	.....	1,850 00	.....	2,750 00	.....	2,179 57	.....
Hudson	5	.....	5	12,800 00	.....	1,950 00	.....	3,300 00	.....	2,560 00	.....
Hunterdon	1	.....	1	2,400 00	.....	2,400 00	.....	2,400 00	.....	2,400 00	.....
Mercer .....	.....	2	2	.....	4,300 00	.....	1,800 00	.....	2,500 00	.....	2,150 00
Middlesex	5	.....	5	9,450 00	.....	1,500 00	.....	2,300 00	.....	1,880 00	.....
Monmouth	5	.....	5	11,050 00	.....	1,700 00	.....	3,250 00	.....	2,210 00	.....
Morris	7	.....	7	13,400 00	.....	1,850 00	.....	3,750 00	.....	2,628 57	.....
Ocean	3	.....	3	8,836 00	.....	736 00	.....	1,700 00	.....	1,278 66	.....
Passaic .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Salem	2	.....	2	2,800 00	.....	1,800 00	.....	2,600 00	.....	1,900 00	.....
Somerset	3	.....	3	8,000 00	.....	2,000 00	.....	3,000 00	.....	2,666 66	.....
Sussex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Union	17	12	29	38,050 00	21,020 00	1,500 00	1,300 00	3,600 00	2,500 00	2,238 23	1,617 00
Warren	1	1	2	1,500 00	1,400 00	1,500 00	1,400 00	1,500 00	1,400 00	1,560 00	1,400 00
Total	78	20	98	\$172,468 72	\$31,370 00	\$736 00	\$1,000 00	\$3,750 00	\$3,500 00	\$2,211 53	\$1,568 50

TABLE 16—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			NON-TEACHING PRINCIPALS. (Those who devote their time to administration and supervision of instruction of a school).							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	4	9	13	\$11,150 00	\$12,950 00	\$2,100 00	\$1,400 00	\$2,300 00	\$1,700 00	\$2,787 50	\$1,550 00
Bergen	21	20	41	41,125 00	26,435 00	1,150 00	1,000 00	3,000 00	1,900 00	1,953 33	1,324 25
Burlington	10	17	27	17,900 00	25,100 00	1,600 00	1,200 00	2,100 00	2,200 00	1,790 00	1,476 47
Cape May	1	2	3	1,250 00	2,650 00	1,250 00	1,200 00	1,250 00	1,250 00	1,250 00	1,225 00
Cumberland	20	27	107	233,372 50	42,310 00	1,220 00	1,125 00	4,600 00	2,400 00	2,917 16	1,557 04
Essex	69	34	103	206,265 95	32,239 90	1,800 00	1,300 00	6,000 00	3,050 00	2,989 26	2,423 20
Gloucester	1	1	2	2,500 00	.....	2,500 00	.....	2,500 00	.....	2,500 00	.....
Hudson	4	22	26	10,950 00	25,900 00	1,750 00	1,300 00	4,200 00	2,000 00	2,737 50	1,631 82
Mercer	9	7	16	18,300 00	10,625 00	1,600 00	1,800 00	2,925 00	2,500 00	2,063 33	1,517 85
Middlesex	8	3	11	15,400 00	4,650 00	1,425 00	1,300 00	2,400 00	1,300 00	1,925 00	1,550 00
Monmouth .....	.....	3	3	.....	4,800 00	.....	1,300 00	.....	2,100 00	.....	1,600 00
Morris .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ocean	25	18	53	81,075 00	27,225 00	1,500 00	1,200 00	3,750 00	1,950 00	2,316 42	1,512 50
Passaic .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Salem .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sussex	2	.....	2	4,750 00	.....	2,250 00	.....	2,500 00	.....	2,275 00	.....
Union	12	8	20	20,800 00	11,300 00	1,000 00	1,000 00	2,000 00	1,750 00	1,732 32	1,412 50
Warren .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	256	170	426	\$665,328 45	\$267,324 90	\$1,000 00	\$1,000 00	\$6,000 00	\$3,050 00	\$2,592 97	\$1,690 50

TABLE 16—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			SUPERVISORS.							other than A super- training.
	Men.	Women.	Total.	Aggregate Salary— Men.	Aggregate Salary— Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	1	11	12	\$2,205 00	\$12,550 00	\$2,200 00	\$750 00	\$2,200 00	\$2,700 00	\$2,200 00	\$1,227 00
Bergen ..											
Burlington ..	1	1	2	2,100 00	3,100 00	2,100 00	2,100 00	2,100 00	2,100 00	2,100 00	2,100 00
Camden ..											
Cape May ..											
Cumberland ..											
Essex ..											
Gloucester ..											
Hudson ..	2	20	22	5,405 25	49,378 50	1,300 00	800 00	2,700 00	2,500 00	1,822 75	1,703 72
Hunterdon ..											
Mercer ..	1	1	2	1,800 00	1,800 00	1,800 00	1,800 00	1,800 00	1,800 00	1,800 00	1,800 00
Middlesex ..	2	4	6	2,225 00	4,500 00	1,500 00	800 00	1,725 00	1,550 00	1,512 50	1,155 00
Monmouth ..											
Morris ..											
Ocean ..											
Passaic ..	2	6	8	2,200 00	7,300 00	1,400 00	1,025 00	1,800 00	1,300 00	1,800 00	1,315 00
Salem ..											
Somerset ..											
Sussex ..											
Union ..											
Warren ..											
Total	9	56	65	\$16,223 25	\$94,572 50	\$1,300 00	\$750 00	\$2,700 00	\$2,500 00	\$1,510 37	\$1,520 25

TABLE 16—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	EMPLOYED. NUMBER			SPECIAL SUPERVISORS. (Those who assist teachers in matters pertaining to instruction in special subjects. Drawing, penmanship, etc. Do not include those engaged in manual training, vocational, evening school or foreign-born evening school work).							
	Men.	Women.	Total.	Aggregate Salary— Men.	Aggregate Salary— Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic .....	.....	4	4	.....	\$3,075 00	.....	\$400 00	.....	\$1,000 00	.....	\$763 75
Bergen	1	11	12	\$1,650 00	14,150 00	\$1,650 00	1,000 00	\$1,650 00	1,650 00	\$1,650 00	1,286 36
Burlington	2	8	10	2,010 00	6,225 00	910 00	400 00	1,100 00	1,200 00	1,005 00	773 11
Camden	3	6	9	5,600 00	7,600 00	1,300 00	1,100 00	1,900 00	1,800 00	1,866 06	1,268 06
Cape May .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland .....	.....	7	7	.....	6,500 00	.....	750 00	.....	1,300 00	.....	923 57
Essex	13	43	56	36,595 00	66,399 50	1,400 00	850 00	3,100 00	2,300 00	2,083 06	1,383 33
Gloucester	2	6	8	1,200 00	4,053 20	350 00	400 00	850 00	950 00	600 00	676 36
Hudson	13	23	36	26,925 00	31,513 83	1,150 00	850 00	3,700 00	2,600 00	2,071 15	1,433 06
Hunterdon .....	.....	3	3	.....	1,525 00	.....	200 00	.....	325 00	.....	508 33
Mercer .....	.....	7	7	.....	11,550 00	.....	1,300 00	.....	1,900 00	.....	1,650 00
Middlesex	1	6	7	450 00	6,700 00	450 00	1,000 00	450 00	1,200 00	450 00	1,116 06
Monmouth	2	15	17	3,050 00	17,150 00	1,500 00	900 00	1,550 00	1,375 00	1,525 00	1,143 33
Morris	1	3	4	1,500 00	3,700 00	1,500 00	800 00	1,500 00	1,700 00	1,500 00	1,233 33
Ocean .....	.....	3	3	.....	2,675 00	.....	750 00	.....	1,000 00	.....	891 06
Passaic	1	4	5	2,000 00	4,300 00	2,000 00	950 00	2,000 00	1,410 00	2,000 00	1,215 00
Salem .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset	2	.....	2	3,650 00	.....	1,700 00	.....	1,950 00	.....	1,825 00	.....
Sussex .....	.....	7	7	.....	5,925 00	.....	750 00	.....	925 00	.....	846 43
Union	9	23	32	14,150 00	32,575 00	1,100 00	500 00	2,000 00	1,725 00	1,572 23	1,163 39
Warren	2	3	5	2,500 00	2,850 00	1,000 00	850 00	1,500 00	1,100 00	1,250 00	950 00
Total	57	191	248	\$101,230 00	\$129,036 53	\$350 00	\$200 00	\$3,700 00	\$2,600 00	\$1,776 34	\$1,199 14

TABLE 16—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			TEACHERS, RURAL SCHOOLS—ONE ROOM. (A rural school is one located either in the open country or the village, the majority of whose pupils are the children of farmers and others living in the country).							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	2	23	25	\$1,350 00	\$15,710 00	\$675 00	\$540 00	\$675 00	\$765 00	\$675 00	\$633 04
Bergen	1	13	14	1,000 00	9,550 00	1,000 00	550 00	1,000 00	900 00	1,000 00	734 61
Burlington	4	22	26	2,425 00	14,036 00	525 00	425 00	700 00	775 00	606 25	633 00
Camden .....	.....	21	21	.....	12,943 50	.....	522 50	.....	700 00	.....	616 81
Cape May	2	11	13	1,520 00	7,093 50	630 00	535 00	890 00	810 00	760 00	644 86
Cumberland .....	.....	25	25	.....	14,145 25	.....	450 00	.....	800 00	.....	565 81
Essex .....	.....	4	4	.....	2,750 00	.....	600 00	.....	725 00	.....	687 50
Gloucester	1	21	22	750 00	13,122 00	750 00	520 00	750 00	792 00	750 00	624 66
Hudson .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hunterdon	7	57	64	4,575 00	37,197 50	520 00	520 00	1,000 00	800 00	653 47	652 58
Mercer	1	12	13	700 00	8,150 00	700 00	575 00	700 00	775 00	700 00	679 17
Middlesex .....	.....	24	24	.....	16,960 00	.....	625 00	.....	825 00	.....	706 66
Monmouth	7	41	48	5,053 50	26,513 75	540 00	450 00	1,100 00	990 00	721 78	646 79
Morris	4	36	40	2,500 00	24,925 00	500 00	600 00	750 00	890 00	625 00	692 36
Ocean	4	25	29	2,925 00	13,165 00	450 00	450 00	900 00	675 00	731 25	526 60
Passaic	3	10	13	2,150 00	8,225 00	650 00	750 00	750 00	1,025 00	716 66	822 50
Salem	6	27	33	3,915 00	16,207 50	630 00	450 00	675 00	720 00	652 50	600 23
Somerset	3	38	41	2,150 00	25,925 00	700 00	600 00	750 00	800 00	716 66	682 23
Sussex	5	54	59	3,485 00	32,530 00	585 00	495 00	900 00	700 00	697 00	602 40
Union .....	.....	2	2	.....	1,575 00	.....	700 00	.....	875 00	.....	787 50
Warren	5	41	46	2,900 00	25,320 00	450 00	450 00	750 00	800 00	580 00	617 56
Total	55	507	562	\$37,397 50	\$326,043 00	\$450 00	\$425 00	\$1,100 00	\$1,025 00	\$679 95	\$643 09

TABLE 16—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			TEACHERS, RURAL SCHOOLS—TWO ROOMS. (Teachers considered in the one- and two-room rural school tables are not to be considered in the grade teachers' tables).							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	30		30	\$2,300 00	\$21,389 50	\$1,100 00	\$240 00	\$1,200 00	\$804 50	\$1,150 00	\$712 98
Bergen	2		20		13,950 00		600 00		1,150 00		775 00
Burlington	1		26	585 00	16,815 00	585 00	540 00	585 00	850 00	585 00	672 60
Camden		22	22		13,889 70		522 45		750 00		631 25
Cape May	4		28	2,848 50	16,160 50	630 00	540 00	765 00	765 00	712 12	681 68
Cumberland	3		26	1,948 00	12,481 00	625 00	450 00	693 00	650 00	649 33	542 65
Essex	3		6		4,650 00		600 00		975 00		775 00
Gloucester	35		38	2,327 50	23,183 00	575 00	540 00	945 00	850 00	775 83	682 51
Hudson											
Hunterdon	2		14	1,750 00	8,307 50	750 00	530 00	1,000 00	900 00	875 00	692 29
Mercer		10	10		7,525 00		650 00		900 00		752 50
Middlesex		14	14		9,475 00		550 00		900 00		676 73
Monmouth	2		30	1,700 00	19,547 50	800 00	550 00	900 00	800 00	850 00	698 12
Morris	3		55	2,450 00	37,085 00	750 00	550 00	900 00	900 00	816 67	712 17
Ocean	4		24	2,745 00	11,555 00	630 00	450 00	765 00	720 00	696 25	577 75
Passaic	2		10	2,000 00	6,150 00	1,000 00	700 00	1,000 00	850 00	1,000 00	763 75
Salem	1		12	675 00	7,167 50	675 00	522 50	675 00	810 00	675 00	651 59
Somerset		24	24		16,500 00		600 00		800 00		637 50
Sussex	2		10	1,900 00	4,875 00	650 00	550 00	650 00	625 00	650 00	609 37
Union	1		4	1,200 00	2,300 00	1,200 00	600 00	1,200 00	900 00	1,200 00	766 66
Warren	3		22	2,350 00	12,050 00	750 00	600 00	850 00	750 00	783 33	634 21
Total	83	392	425	\$26,179 00	\$264,061 20	\$675 00	\$450 00	\$1,200 00	\$1,150 00	\$793 30	\$673 62

TABLE 16—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
	Men.	Women.	Total.								
Atlantic	27	68	95	.....	\$24,149 50	.....	\$575 00	.....	\$1,500 00	.....	\$394 42
Bergen	68	5	73	.....	55,075 00	.....	600 00	.....	1,250 00	.....	309 92
Burlington	5	16	21	.....	3,225 00	.....	500 00	.....	850 00	.....	645 00
Camden	16	2	18	.....	12,400 00	.....	650 00	.....	850 00	.....	775 00
Cape May	2	2	4	.....	1,200 50	.....	545 50	.....	720 00	.....	633 25
Cumberland .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Essex	244	2	246	.....	241,007 50	.....	450 00	.....	1,500 00	.....	967 74
Gloucester	2	73	75	.....	1,275 00	.....	575 00	.....	700 00	.....	637 50
Hudson	73	4	77	.....	31,963 89	.....	600 00	.....	1,000 00	.....	1,122 79
Hunterdon	4	62	66	.....	2,850 00	.....	650 00	.....	750 00	.....	712 50
Mercer	62	34	96	.....	51,500 00	.....	550 00	.....	1,150 00	.....	830 64
Middlesex	34	18	52	.....	26,563 00	.....	563 00	.....	1,150 00	.....	781 25
Monmouth	18	8	26	.....	14,290 00	.....	600 00	.....	955 00	.....	793 83
Morris	8	5	13	.....	6,400 00	.....	675 00	.....	1,000 00	.....	800 00
Ocean	5	70	75	.....	3,550 00	.....	625 00	.....	800 00	.....	719 00
Passaic	70	3	73	.....	53,731 00	.....	600 00	.....	1,100 00	.....	839 01
Salem	3	13	16	.....	2,150 00	.....	675 00	.....	750 00	.....	716 67
Somerset	13	5	18	.....	9,050 00	.....	600 00	.....	900 00	.....	754 16
Sussex	5	45	50	.....	3,625 00	.....	700 00	.....	800 00	.....	725 00
Union	45	.....	45	.....	35,750 00	.....	550 00	.....	1,150 00	.....	794 44
Warren .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	703	703	703	.....	\$634,831 30	.....	\$450 00	.....	\$1,600 00	.....	\$903 02

TABLE 16—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			TEACHERS, GRADES 1 TO 4, INCLUSIVE—DAY SCHOOLS. (Do not enter one- or two-room rural school teachers on this page).							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	174	174	174	.....	\$147,100 00	.....	\$522 50	.....	\$1,500 00	.....	\$845 40
Bergen	1	551	551	.....	414,942 50	\$900 00	550 00	\$900 00	1,200 00	\$900 00	754 44
Burlington .....	.....	153	153	.....	97,570 20	.....	420 00	.....	850 00	.....	637 71
Camden .....	.....	414	414	.....	316,636 35	.....	400 00	.....	1,200 00	.....	764 94
Cape May .....	.....	48	48	.....	32,879 10	.....	450 00	.....	1,000 00	.....	684 98
Cumberland	1	126	127	.....	77,438 50	540 00	405 00	540 00	800 00	540 00	614 56
Essex	1	1,242	1,243	.....	1,266,885 00	990 00	600 00	990 00	1,575 00	990 00	1,020 04
Gloucester .....	.....	97	97	.....	64,859 00	.....	525 00	.....	825 00	.....	663 65
Hudson .....	.....	1,137	1,137	.....	1,253,322 38	.....	600 00	.....	1,836 00	.....	1,106 70
Hunterdon .....	.....	39	39	.....	25,645 00	.....	540 00	.....	850 00	.....	657 56
Mercer .....	.....	293	293	.....	240,620 00	.....	600 00	.....	1,150 00	.....	821 23
Middlesex .....	.....	352	352	.....	284,610 00	.....	625 00	.....	1,250 00	.....	808 55
Monmouth .....	.....	230	230	.....	175,327 00	.....	500 00	.....	1,100 00	.....	762 29
Morris .....	.....	138	138	.....	108,369 50	.....	600 00	.....	1,300 00	.....	785 28
Ocean .....	.....	40	40	.....	24,800 00	.....	450 00	.....	850 00	.....	620 00
Passaic	1	523	524	.....	418,835 00	750 00	600 00	750 00	1,150 00	750 00	800 82
Salem .....	.....	78	78	.....	50,675 00	.....	540 00	.....	950 00	.....	649 63
Somerset .....	.....	79	79	.....	60,375 00	.....	600 00	.....	1,050 00	.....	764 24
Sussex .....	.....	31	31	.....	21,100 00	.....	550 00	.....	750 00	.....	680 64
Union	1	393	394	.....	323,130 00	1,100 00	600 00	1,100 00	1,250 00	1,100 00	847 65
Warren .....	.....	80	80	.....	54,970 00	.....	500 00	.....	855 00	.....	687 12
Total	51	6,217	6,222	\$4,280 00	\$5,475,137 53	\$540 00	\$400 00	\$1,100 00	\$1,836 00	\$856 00	\$880 67

TABLE 16—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			TEACHERS, GRADES 5 TO 8, INCLUSIVE—DAY SCHOOLS. (Do not enter one- and two-room rural school teachers on this page).							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	5	129	134	\$4,575 00	\$123,797 75	\$675 00	\$641 25	\$1,200 00	\$1,500 00	\$915 00	\$969 67
Bergen	18	416	434	24,587 50	353,638 00	637 50	600 00	2,100 00	1,550 00	1,365 97	850 09
Burlington	5	106	111	4,400 00	79,224 13	700 00	550 00	1,000 00	1,100 00	880 00	747 39
Camden	7	262	269	7,850 00	221,446 80	850 00	475 00	1,400 00	1,200 00	1,060 00	845 22
Cape May	5	35	40	4,825 00	26,646 37	676 00	540 00	1,250 00	1,050 00	965 00	761 32
Cumberland	8	89	97	6,585 00	61,895 50	630 00	472 50	1,050 00	1,050 00	823 12	686 45
Essex	35	904	939	41,650 00	1,017,426 50	800 00	600 00	1,800 00	1,890 00	1,190 00	1,125 47
Gloucester	3	69	72	2,810 00	51,714 45	630 00	550 00	1,500 00	1,050 00	936 66	749 48
Hudson	6	856	862	7,425 00	1,043,175 53	1,000 00	600 00	1,525 00	2,126 00	1,237 50	1,213 66
Hunterdon	2	29	31	1,850 00	20,545 00	850 00	550 00	1,000 00	900 00	925 00	708 45
Mercer	8	161	164	2,650 00	146,245 00	800 00	575 00	1,000 00	1,250 00	883 33	908 25
Middlesex	13	209	223	16,455 00	187,272 00	870 00	960 00	1,600 00	1,250 00	1,265 76	896 03
Monmouth	18	157	175	21,825 00	130,782 50	800 00	570 00	1,800 00	1,400 00	1,213 50	833 00
Morris	8	95	103	8,943 00	82,625 50	1,100 00	600 00	1,600 00	1,475 00	1,113 50	889 74
Ocean	2	33	35	3,050 00	23,675 00	1,400 00	495 00	1,650 00	950 00	1,525 00	717 43
Passaic	10	397	407	13,675 00	324,236 00	1,600 00	600 00	1,600 00	1,250 00	1,367 50	963 00
Salem	4	59	63	3,100 00	42,086 50	650 00	575 00	850 00	990 00	775 00	713 33
Somerset	5	54	59	7,350 00	46,225 00	1,200 00	650 00	1,700 00	1,250 00	1,470 00	856 01
Sussex	3	24	27	3,400 00	17,750 00	900 00	625 00	1,250 00	925 00	1,133 33	739 53
Union	8	275	283	8,460 00	253,600 00	900 00	650 00	1,400 00	1,500 00	1,067 50	922 40
Warren	5	46	51	5,135 00	33,030 00	1,000 00	500 00	1,045 00	1,100 00	1,027 00	713 04
Total	173	4,406	4,578	\$200,105 50	\$4,347,156 53	\$630 00	\$472 50	\$2,100 00	\$2,126 00	\$1,156 67	\$986 86

TABLE 16—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			TEACHERS, JUNIOR HIGH SCHOOL GRADES, 7 TO 9 INCLUSIVE—DAY SCHOOLS. (Do not include in any other column).							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic											
Bergen											
Burlington											
Camden											
Cape May											
Cumberland											
Essex											
Gloucester											
Hudson											
Hunterdon											
Mercer	13	66	79	\$19,150 00	\$33,350 00	\$1,100 00	\$300 00	\$1,300 00	\$1,700 00	\$1,473 08	\$1,094 09
Middlesex		11	11		9,950 00		300 00		1,300 00		904 54
Monmouth											
Morris											
Ocean											
Passaic											
Salem											
Somerset											
Sussex											
Union											
Warren											
Total	13	77	90	\$19,150 00	\$73,300 00	\$1,100 00	\$300 00	\$1,300 00	\$1,700 00	\$1,473 08	\$1,015 53

TABLE 16—Continued

TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			TEACHERS, GRADES 9 TO 12, INCLUSIVE—DAY SCHOOLS.							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	23	56	79	\$44,400 00	\$68,100 00	\$1,200 00	\$300 00	\$2,600 00	\$1,500 00	\$1,930 42	\$1,314 07
Bergen	29	128	167	61,000 00	142,287 50	1,000 00	300 00	2,000 00	1,600 00	1,564 10	1,111 62
Burlington	6	26	42	6,900 00	24,246 00	350 00	750 00	1,606 00	1,200 00	1,150 00	954 08
Camden	17	71	88	22,976 00	74,330 00	500 00	300 00	1,900 00	1,300 00	1,410 29	1,046 00
Cape May	12	19	31	17,422 50	18,187 50	560 00	720 00	2,000 00	1,250 00	1,451 87	1,067 23
Cumberland	13	48	61	16,967 50	41,565 00	355 00	750 00	1,800 00	1,450 00	1,204 42	965 94
Essex	214	264	478	465,870 00	876,992 50	1,000 00	900 00	3,400 00	2,400 00	2,176 96	1,434 21
Gloucester	1	31	32	1,500 00	26,785 00	1,500 00	650 00	1,500 00	1,100 00	1,500 00	884 08
Hudson	144	165	309	312,477 23	277,400 14	1,200 00	300 00	4,400 00	3,000 00	2,311 64	1,681 57
Hunterdon	4	29	33	5,600 00	26,675 00	750 00	700 00	1,900 00	1,200 00	1,400 09	965 24
Mercer	18	29	47	31,850 00	39,430 00	1,150 00	725 00	2,450 00	1,550 00	1,769 44	1,269 08
Middlesex	20	53	73	35,050 00	60,000 00	1,150 00	725 00	2,550 00	1,550 00	1,753 50	1,132 07
Monmouth	19	85	104	23,475 00	87,635 00	1,000 00	700 00	2,400 00	1,500 00	1,493 68	1,031 00
Morris	20	50	70	27,570 00	50,092 00	840 00	700 00	1,800 00	1,300 00	1,573 50	1,061 24
Ocean	6	19	25	8,157 00	17,700 00	906 00	300 00	1,600 00	1,100 00	1,256 13	931 57
Passaic	19	83	129	34,600 00	107,975 00	1,200 00	300 00	2,200 00	1,600 00	1,653 82	1,227 00
Salem	3	20	23	3,300 00	17,300 00	1,000 00	750 00	1,500 00	1,200 00	1,206 67	890 09
Somerset	8	31	39	12,050 00	30,625 00	1,000 00	700 00	1,800 00	1,300 00	1,506 26	967 00
Sussex	5	17	22	6,050 00	15,325 00	1,000 00	750 00	1,450 00	1,100 00	1,210 00	901 47
Union	40	113	153	71,165 00	136,175 00	1,150 00	500 00	2,200 00	1,300 00	1,779 13	1,206 91
Warren	11	22	33	14,100 00	20,215 00	750 00	725 00	1,500 00	1,100 00	1,261 61	918 26
Total	674	1,573	2,047	\$1,284,949 23	\$1,666,699 64	\$500 00	\$500 00	\$4,400 00	\$3,000 00	\$1,906 45	\$1,313 91

TABLE 16--Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			SHORT TERM TEACHERS--DAY SCHOOLS. (A teacher teaching not less than four months but not for the full term. A teacher teaching less than four months will be classed as a "substitute teacher").							
	Men.	Women.	Total.	Aggregate Salary--Men.	Aggregate Salary--Women.	Minimum--Men.	Minimum--Women.	Maximum--Men.	Maximum--Women.	Average--Men.	Average--Women.
Atlantic	4	.....	\$2,301 25	.....	\$425 00	.....	\$1,000 00	.....	\$575 21
Bergen	4	4	.....	723 00	.....	345 00	.....	385 00	.....	366 33
Burlington	2	2	.....	415 00	.....	135 00	.....	280 00	.....	207 50
Camden
Cape May
Cumberland	1,167 50	.....	300 00	.....	307 50	.....	583 75
Essex	6,580 00	.....	275 00	.....	1,000 00	.....	731 11
Gloucester	833 75	.....	233 75	.....	600 00	.....	416 83
Hudson	7,584 00	.....	240 00	.....	1,536 00	.....	1,083 43
Hunterdon
Mercer	1	.....	1	\$750 00	1,075 00	\$750 00	1,075 00	\$750 00	1,075 00	\$750 00	1,075 00
Middlesex	4	4	.....	1,570 00	.....	240 00	.....	500 00	.....	392 50
Monmouth	3	3	.....	2,075 00	.....	450 00	.....	825 00	.....	691 68
Morris	1	.....	1	1,200 00	1,090 00	1,200 00	240 00	1,200 00	600 00	1,200 00	343 33
Ocean	1	1	.....	180 00	.....	180 00	.....	180 00	.....	180 00
Passaic
Salem	3	3	.....	910 00	.....	200 00	.....	325 00	.....	303 23
Somerset
Sussex	5	5	.....	1,750 00	.....	150 00	.....	450 00	.....	350 00
Union	1	1	.....	100 00	.....	100 00	.....	100 00	.....	100 00
Warren
Total	2	49	51	\$1,950 00	\$28,364 50	\$750 00	\$100 00	\$1,200 00	\$1,836 00	\$975 00	\$573 87

TABLE 16—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			SUBSTITUTE TEACHERS—DAY SCHOOLS. (One not assigned to a regular class or one teaching a class for less than four months).							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	2	2	4	.....	.....	.....	.....	.....	.....	.....	.....
Bergen	1	1	2	.....	.....	.....	.....	.....	.....	.....	.....
Burlington	25	25	50	.....	.....	.....	.....	.....	.....	.....	.....
Cape May	5	5	10	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland	4	4	8	.....	.....	.....	.....	.....	.....	.....	.....
Essex	2	2	4	.....	.....	.....	.....	.....	.....	.....	.....
Gloucester	5	5	10	.....	.....	.....	.....	.....	.....	.....	.....
Hudson .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hunterdon .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mercer	3	3	6	.....	.....	.....	.....	.....	.....	.....	.....
Middlesex	2	2	4	.....	.....	.....	.....	.....	.....	.....	.....
Monmouth .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Morris .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ocean .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Passaic .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Salem	1	1	2	.....	.....	.....	.....	.....	.....	.....	.....
Somerset	2	2	4	.....	.....	.....	.....	.....	.....	.....	.....
Sussex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Union .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Warren	53	53	106	.....	.....	.....	.....	.....	.....	.....	.....
Total	53	53	106	.....	.....	.....	.....	.....	.....	.....	.....

TABLE 16--Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			SPECIAL TEACHERS--UNGRADED, BACKWARD AND INCORRIGIBLE CLASSES--DAY SCHOOLS.							
	Men.	Women.	Total.	Aggregate Salary--Men.	Aggregate Salary--Women.	Minimum--Men.	Minimum--Women.	Maximum--Men.	Maximum--Women.	Average--Men.	Average--Women.
Atlantic .....	.....	8	8	.....	\$5,900 00	.....	\$650 00	.....	9900 00	.....	\$737 50
Bergen .....	.....	2	2	.....	1,775 00	.....	725 00	.....	1,050 00	.....	857 50
Burlington .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Camden .....	.....	2	2	.....	1,900 00	.....	950 00	.....	950 00	.....	950 00
Cape May .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Essex	3	5	8	\$4,000 00	8,000 00	\$1,200 00	1,500 00	\$1,500 00	1,900 00	\$1,533 33	1,720 00
Gloucester .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hudson	1	9	10	1,100 00	12,005 00	1,100 00	900 00	1,100 00	1,800 00	1,100 00	1,445 11
Hunterdon .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mercer .....	.....	2	2	.....	1,550 00	.....	650 00	.....	900 00	.....	775 00
Middlesex .....	.....	1	1	.....	775 00	.....	775 00	.....	775 00	.....	775 00
Monmouth .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Morris .....	.....	3	3	.....	3,775 00	.....	825 00	.....	1,000 00	.....	925 00
Ocean .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Passaic	1	9	10	1,550 00	7,650 00	1,550 00	700 00	1,550 00	1,250 00	1,550 00	850 00
Salem .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sussex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Union	1	1	2	1,500 00	1,140 00	1,500 00	1,140 00	1,500 00	1,140 00	1,500 00	1,140 00
Warren .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	6	42	48	\$3,150 00	\$45,071 00	\$1,100 00	\$650 00	\$1,550 00	\$1,900 00	\$1,363 33	\$1,073 13

TABLE 16—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			SPECIAL TEACHERS—TEACHER CLERKS—DAY SCHOOLS. (Regularly certificated teacher used as temporary substitute and general assistant to the principal).							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	1	1	2	1	\$370 00	.....	\$370 00	.....	\$370 00	.....	\$370 00
Bergen	13	13	26	.....	9,850 00	.....	675 00	.....	1,200 00	.....	820 23
Burlington	4	4	8	.....	2,875 00	.....	700 00	.....	750 00	.....	713 75
Camden	3	3	6	.....	1,975 00	.....	600 00	.....	725 00	.....	653 33
Cape May	1	1	2	.....	629 62	.....	629 62	.....	629 62	.....	629 62
Cumberland	2	2	4	.....	1,310 00	.....	650 00	.....	680 00	.....	655 00
Essex	33	33	66	.....	94,185 00	.....	600 00	.....	1,450 00	.....	856 66
Gloucester	1	1	2	.....	715 00	.....	715 00	.....	715 00	.....	715 00
Hudson	41	41	82	.....	50,636 33	.....	650 00	.....	2,100 00	.....	1,236 26
Hunterdon	1	1	2	.....	175 00	.....	175 00	.....	175 00	.....	175 00
Mercer	3	3	6	.....	2,650 00	.....	700 00	.....	1,200 00	.....	883 33
Middlesex	13	13	26	.....	2,511 00	.....	600 00	.....	1,050 00	.....	739 20
Monmouth	6	6	12	.....	4,900 00	.....	450 00	.....	1,200 00	.....	816 66
Morris	3	3	6	.....	2,150 00	.....	550 00	.....	1,000 00	.....	716 67
Ocean	1	1	2	.....	625 00	.....	625 00	.....	625 00	.....	625 00
Passaic	9	9	18	.....	4,700 00	.....	700 00	.....	900 00	.....	783 33
Salem	2	2	4	.....	1,265 00	.....	600 00	.....	865 00	.....	632 50
Somerset	2	2	4	.....	1,900 00	.....	350 00	.....	1,050 00	.....	850 00
Sussex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Union	28	28	56	.....	20,815 00	.....	600 00	.....	1,045 00	.....	743 39
Warren .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	213	213	426	.....	\$201,836 25	.....	\$175 00	.....	\$2,100 00	.....	\$926 06

TABLE 16—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			MANUAL TRAINING TEACHERS—EVENING SCHOOLS. (Include supervisors and teachers devoting full time to the work. Those not devoting full time should be classed as regular day school teachers and not M. T. Teachers).							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic											
Bergen											
Burlington											
Camden	2		2	\$312 00		\$3 00		\$3 00		\$3 00	
Cape May											
Cumberland											
Essex											
Gloucester											
Hudson	4		4	648 00		3 00		3 00		3 00	
Hunterdon											
Mercer	6		6	1,312 00		2 50		3 00		2 67	
Middlesex											
Monmouth											
Morris		1	1		\$92 00		\$2 00		\$2 00		\$2 00
Ocean	9		9	1,504 00		1 60		2 50		2 60	
Passaic											
Salem											
Somerset											
Sussex	1	1	2	186 00	192 00	3 00	3 00	3 00	3 00	3 00	3 00
Union											
Warren											
Total	22	2	24	\$3,962 00	\$284 00	\$1 60	\$2 00	\$3 00	\$3 00	\$2 50	\$1 97

TABLE 16—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			MANUAL TRAINING TEACHERS—DAY SCHOOLS. (Include supervisors and teachers devoting full time to the work. Those not devoting full time should be classed as regular day school teachers and not M. T. teachers).							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	7	10	17	\$10,723 70	\$9,450 00	\$1,050 00	\$700 00	\$1,800 00	\$1,100 00	\$1,531 95	\$945 00
Bergen	26	23	53	32,321 13	28,800 00	491 13	550 00	1,950 00	1,350 00	1,238 85	1,028 57
Burlington	2	6	8	2,000 00	4,745 00	800 00	420 00	1,200 00	1,200 00	1,000 00	790 33
Camden	9	9	18	12,500 00	8,100 00	1,400 00	700 00	1,800 00	1,050 00	1,388 33	900 00
Cape May	3	2	5	4,400 00	1,867 50	1,400 00	805 00	1,500 00	1,062 50	1,466 66	933 75
Cumberland	3	8	11	3,960 00	6,875 00	900 00	600 00	1,700 00	1,050 00	1,316 66	859 37
Essex	43	43	90	52,572 50	57,745 00	1,100 00	580 00	2,100 00	1,600 00	1,251 73	1,203 02
Gloucester	1	10	11	1,300 00	6,925 00	1,200 00	350 00	1,300 00	1,050 00	1,200 00	1,092 50
Hudson	27	33	59	29,652 30	43,796 76	800 00	800 00	2,600 00	2,000 00	1,468 60	1,368 65
Hunterdon	1	1	2	1,800 00	1,800 00	1,800 00	1,800 00	1,800 00	1,800 00	1,800 00	1,800 00
Mercer	10	13	23	14,050 00	12,730 00	1,000 00	700 00	2,400 00	1,750 00	1,405 00	1,080 33
Middlesex	10	13	23	13,630 00	17,310 00	870 00	680 00	1,800 00	1,300 00	1,362 00	961 66
Monmouth	7	17	24	10,050 00	17,737 50	1,050 00	775 00	1,800 00	1,375 00	1,435 71	1,043 38
Morris	6	10	16	7,800 00	11,100 00	1,000 00	850 00	1,500 00	1,350 00	1,300 00	1,110 00
Ocean	1	2	3	1,000 00	2,100 00	1,000 00	1,000 00	1,000 00	1,100 00	1,000 00	1,050 00
Passaic	24	19	43	30,880 00	19,585 00	220 00	360 00	2,200 00	1,600 00	1,286 66	1,029 03
Salem	4	4	8	6,325 00	3,275 00	1,125 00	625 00	1,500 00	950 00	1,331 25	813 75
Somerset	3	3	6	4,400 00	2,250 00	1,250 00	800 00	1,650 00	1,400 00	1,466 66	1,083 33
Sussex	1	3	4	1,600 00	2,550 00	1,600 00	750 00	1,800 00	1,000 00	1,600 00	850 00
Union	20	19	39	26,855 00	17,765 00	600 00	400 00	2,350 00	1,400 00	1,342 75	935 00
Warren	3	3	6	4,000 00	2,000 00	1,200 00	700 00	1,500 00	1,075 00	1,333 33	866 66
Total	209	264	473	\$280,599 63	\$230,106 76	\$230 00	\$350 00	\$2,600 00	\$2,000 00	\$1,342 53	\$1,061 07

TABLE 16—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			VOCATIONAL TEACHERS—EVENING SCHOOLS. (Teachers employed both day and evening are classed as holding two teaching positions).							
	Men.	Women.	Total.	Aggregate Salary— Men.	Aggregate Salary— Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic
Bergen
Burlington
Camden
Cape May
Cumberland
Essex	63	26	104	\$27,417 00	12,704 50	\$3 50	3 00	\$4 00	4 00	\$4 00	4 00
Gloucester
Hudson	38	8	46	8,704 50	1,938 50	3 00	2 00	4 00	3 00	3 57	2 63
Hunterdon
Mercer
Middlesex
Monmouth
Morris
Ocean
Passaic	7	26	33	1,251 20	3,370 00	2 50	1 00	3 00	2 50	3 00	2 54
Salem
Somerset
Sussex
Union
Warren
Total	112	73	186	\$37,372 70	\$19,233 00	\$3 50	\$1 00	\$4 00	\$4 00	\$4 50	\$3 06

TABLE 16—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			VOCATIONAL TEACHERS—DAY SCHOOLS. (Teachers employed both day and evening are classed as holding two teaching positions).							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	7	9	16	\$11,000 00	\$9,500 00	\$1,050 00	\$350 00	\$1,900 00	\$1,750 00	\$1,571 42	\$1,055 55
Bergen .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Burlington .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Camden .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cape May .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Essex	15	20	35	23,890 00	24,452 00	900 00	375 00	2,800 00	2,400 00	1,592 67	1,322 60
Gloucester	1	.....	1	1,200 00	.....	1,200 00	.....	1,200 00	.....	1,200 00	.....
Hudson	13	20	33	24,550 00	30,332 00	1,500 00	600 00	3,100 00	1,955 00	1,833 46	1,516 60
Hunterdon .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mercer .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Middlesex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Monmouth	2	.....	2	3,800 00	.....	1,800 00	.....	2,000 00	.....	1,900 00	.....
Morris .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ocean .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Passaic	5	3	8	7,700 00	2,150 00	500 00	150 00	2,600 00	1,100 00	1,540 00	716 66
Salem .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sussex	2	3	5	2,800 00	2,950 00	1,400 00	350 00	1,400 00	1,100 00	1,400 00	933 33
Union .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Warren .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	45	55	100	\$74,940 00	\$68,394 00	\$500 00	\$150 00	\$3,100 00	\$2,400 00	\$1,685 33	\$1,351 53

TABLE 16—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			EVENING SCHOOL TEACHERS. (Teachers considered in the day school tables and teaching in the evening schools will also be considered in this table. Do not include foreign-born evening school teachers).							
	Men.	Women.	Total.	Aggregate Salary. Men.	Aggregate Salary. Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	2	9	11	\$672 00	\$1,678 00	\$4 68	\$1 34	\$6 00	\$3 00	\$4 20	\$3 74
Bergen .....	.....	2	2	.....	160 00	.....	1 25	.....	1 25	.....	1 25
Burlington	10	2	12	1,569 00	122 00	3 00	2 00	3 00	2 50	3 00	2 37
Camden	2	1	3	40 00	20 00	1 50	1 50	1 50	1 50	1 50	1 50
Cape May	1	1	2	160 00	160 00	2 50	2 50	2 50	2 50	2 50	2 50
Cumberland	140	151	291	41,918 00	39,370 25	2 50	2 50	6 00	4 00	3 69	3 21
Essex	2	.....	2	640 00	.....	5 00	.....	6 00	.....	5 00	.....
Gloucester	38	72	110	7,987 00	9,425 00	3 00	2 00	4 00	3 00	3 19	2 62
Hudson .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hunterdon	10	29	39	2,396 00	5,853 00	2 00	2 00	4 00	4 00	2 30	2 47
Mercai .....	.....	4	4	.....	330 00	.....	2 00	.....	.....	.....	2 60
Middlesex	1	2	3	56 00	132 00	3 50	3 00	3 50	3 00	3 50	3 00
Monmouth	3	9	12	610 00	1,501 00	3 00	2 00	4 00	3 00	3 17	2 60
Morris .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ocean	23	14	36	4,162 00	2,462 00	2 50	2 50	3 00	3 50	3 16	3 32
Passaic .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Salem .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sussex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Union	27	23	50	4,633 00	3,839 50	2 50	2 50	6 00	3 00	2 66	2 56
Warren .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	258	319	577	\$64,692 00	\$65,062 75	\$1 50	\$1 25	\$6 00	\$4 00	\$3 48	\$3 83

TABLE 16--Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			TEACHERS IN EVENING SCHOOLS FOR FOREIGN-BORN RESIDENTS. (Receiving State aid).							
	Men.	Women.	Total.	Aggregate Salary— Men.	Aggregate Salary— Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic .....	.....	.....	.....	.....	.....	.....	\$3 00	.....	.....	.....	\$3 00
Bergen .....	.....	2	2	.....	\$383 00	.....	.....	.....	.....	.....	.....
Burlington .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Camden .....	.....	1	1	.....	177 50	.....	2 50	.....	.....	.....	2 50
Cape May .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Essex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gloucester .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hudson	12	34	46	1,295 50	2,488 50	\$3 00	2 00	\$3 50	2 50	2 38	2 25
Hunterdon .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mercer	3	7	10	615 00	1,271 00	2 00	2 00	3 00	2 50	2 50	2 22
Middlesex	9	20	29	3,121 46	2,292 00	2 00	2 00	3 50	7 00	3 19	2 92
Monmouth .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Morris .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ocean .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Passaic	1	14	15	452 00	2,293 50	4 00	3 00	4 00	3 00	4 00	3 00
Salem .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sussex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Union .....	.....	4	4	.....	652 50	.....	3 00	.....	3 00	.....	3 00
Warren .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	26	82	107	\$5,483 96	\$9,543 00	\$3 00	\$3 00	\$4 00	\$7 00	\$3 06	\$1 63

TABLE 16--Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			SPECIAL TEACHERS, SUB-NORMAL CLASSES—DAY SCHOOLS. (Include only those for which an apportionment of \$500 will be made).							
	Men.	Women.	Total.	Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic	5	5	.....	\$4,950 00	.....	\$350 00	.....	\$1,250 00	.....	\$900 00
Bergen	8	8	.....	8,000 00	.....	900 00	.....	1,500 00	.....	1,075 00
Burlington	1	1	.....	775 00	.....	775 00	.....	775 00	.....	775 00
Camden	11	11	.....	9,550 00	.....	750 00	.....	950 00	.....	863 13
Cape May	1	1	.....	874 00	.....	874 00	.....	874 00	.....	874 00
Cumberland	4	4	.....	3,325 00	.....	750 00	.....	875 00	.....	831 25
Essex	1	51	52	\$1,200 00	63,935 00	\$1,200 00	700 00	\$1,200 00	1,600 00	\$1,200 00	1,253 06
Gloucester
Hudson	24	24	.....	36,862 22	.....	1,125 00	.....	1,800 00	.....	1,535 93
Hunterdon	2	2	.....	1,400 00	.....	700 00	.....	700 00	.....	700 00
Mercer	19	19	.....	20,700 00	.....	700 00	.....	1,250 00	.....	1,089 47
Middlesex	6	6	.....	5,980 00	.....	800 00	.....	1,050 00	.....	863 33
Monmouth	4	4	.....	8,825 00	.....	800 00	.....	1,100 00	.....	955 25
Morris	2	2	.....	1,950 00	.....	950 00	.....	1,000 00	.....	975 00
Ocean
Passaic	12	12	.....	12,370 00	.....	800 00	.....	1,300 00	.....	1,080 53
Salem
Somerset	3	3	.....	2,850 00	.....	900 00	.....	1,050 00	.....	950 00
Sussex	2	2	.....	2,000 00	.....	950 00	.....	1,050 00	.....	1,000 00
Union	1	10	11	1,000 00	10,125 00	1,000 00	750 00	1,000 00	1,265 00	1,000 00	1,012 50
Warren
Total	2	165	167	\$2,200 00	\$190,021 22	\$1,000 00	\$700 00	\$1,200 00	\$1,300 00	\$1,100 00	\$1,151 64

TABLE 16—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	EMPLOYED. NUMBER			SPECIAL TEACHERS, DEAF CLASSES—DAY SCHOOLS. (Include only those for which an apportionment of \$500 will be made).							
	Men.	Women.	Total.	Aggregate Salary— Men.	Aggregate Salary— Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
Atlantic											
Bergen											
Burlington											
Camden											
Cape May											
Cumberland											
Essex		11	11		\$16,900 00		\$1,100 00		\$2,200 00		\$1,538 26
Gloucester											
Hudson		2	2		1,856 00		600 00		1,856 00		928 00
Hunterdon											
Mercer											
Middlesex											
Monmouth											
Morris											
Ocean											
Passaic											
Salem											
Somerset											
Sussex											
Union											
Warren											
Total		13	13		\$18,756 00		\$900 00		\$3,200 00		\$1,442 77

TABLE 16—Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			Aggregate Salary—Men.	Aggregate Salary—Women.	Minimum—Men.	Minimum—Women.	Maximum—Men.	Maximum—Women.	Average—Men.	Average—Women.
	Men.	Women.	Total.								
Atlantic
Bergen
Burlington
Camden
Cape May
Cumberland
Essex	3	3	\$4,300 00	\$1,000 00	.....	\$1,000 00	.....	\$1,700 00	.....	\$1,433 33
Gloucester
Hudson	1	1	1	1,356 00	1,356 00	.....	1,356 00	.....	1,356 00	.....	1,356 00
Hunterdon
Mercer
Middlesex
Monmouth
Morris
Ocean
Passaic
Salem
Somerset
Sussex
Union
Warren
Total	4	4	\$5,656 00	\$1,000 00	.....	\$1,000 00	.....	\$1,700 00	.....	\$1,414 00

TABLE 16--Continued
TEACHERS EMPLOYED AND SALARIES PAID.

COUNTIES.	NUMBER EMPLOYED.			SPECIAL TEACHERS--UNCLASSIFIED--DAY SCHOOL.							
	Total.	Men.	Women.	Aggregate Salary--Men.	Aggregate Salary--Women.	Minimum--Men.	Minimum--Women.	Maximum--Men.	Maximum--Women.	Average--Men.	Average--Women.
Atlantic	1	1	8	\$865 00	\$6,732 00	\$865 00	\$650 00	\$865 00	\$1,300 00	\$865 00	\$860 28
Bergen	8	27	30	3,750 00	24,805 00	800 00	280 00	1,700 00	1,200 00	1,250 00	911 23
Burlington	1	1	1	.....	200 00	.....	200 00	.....	200 00	.....	200 00
Camden	15	15	15	.....	14,400 00	.....	650 00	.....	1,500 00	.....	960 00
Cape May	8	8	8	.....	7,212 62	.....	805 00	.....	1,125 00	.....	901 57
Cumberland	3	3	3	.....	2,550 00	.....	700 00	.....	1,000 00	.....	850 00
Essex	48	105	153	76,102 50	120,770 00	900 00	700 00	1,890 00	1,570 00	1,564 64	1,150 19
Gloucester	16	71	87	22,815 00	80,520 41	300 00	800 00	1,900 00	1,560 00	1,425 94	1,174 09
Hudson	1	1	1	.....	800 00	.....	800 00	.....	800 00	.....	800 00
Hunterdon	1	13	13	450 00	10,700 00	450 00	600 00	450 00	1,150 00	450 00	891 67
Mercer	1	13	14	1,100 00	12,530 00	1,100 00	750 00	1,100 00	1,200 00	1,100 00	963 84
Middlesex	4	4	4	.....	3,750 00	.....	850 00	.....	1,100 00	.....	937 50
Monmouth	8	8	8	.....	7,500 00	.....	800 00	.....	1,050 00	.....	937 50
Morris .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ocean .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Passaic	3	24	27	4,200 00	24,100 00	1,000 00	800 00	1,800 00	1,200 00	1,400 00	1,004 17
Salem	2	4	6	1,500 00	3,050 00	700 00	600 00	800 00	950 00	750 00	762 50
Somerset	2	10	12	1,700 00	9,325 00	700 00	750 00	1,000 00	1,500 00	850 00	932 50
Sussex	2	5	7	.....	.....	.....	.....	.....	.....	.....	.....
Union .....	.....	.....	.....	2,100 00	4,275 00	800 00	745 00	1,300 00	985 00	1,050 00	855 00
Warren .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	79	318	397	\$113,382 50	\$333,510 03	\$300 00	\$200 00	\$1,900 00	\$1,570 00	\$1,435 22	\$1,048 77

SCHOOL REPORT.

TABLE 17

SUMMARY OF TEACHERS EMPLOYED.

COUNTIES.	Number of Teachers Employed Excluding Superintendents, Assistant Superintendents, Supervisors (Approved and Unapproved), Non-Teaching Principals, Special Supervisors, Manual Training, Vocational and Evening School Teachers.			Grand Total of All Teachers Employed, Day and Evening.		
	Men.	Women.	Total.	Men.	Women.	Total.
Atlantic	21	464	485	56	507	563
Bergen	64	1,246	1,310	127	1,231	1,458
Burlington	16	256	272	28	276	404
Camden	24	262	286	69	296	267
Cape May	22	149	172	22	152	194
Cumberland	25	227	252	22	247	290
Essex	202	2,940	3,142	625	2,272	2,957
Gloucester	8	290	298	20	277	297
Hudson	167	2,291	2,558	297	2,642	2,099
Hunterdon	15	174	189	19	178	197
Mercer	27	672	719	74	754	828
Middlesex	24	722	757	21	722	864
Monmouth	46	529	625	79	626	705
Morris	26	298	424	64	424	482
Ocean	16	144	160	24	149	173
Passaic	71	1,147	1,218	185	1,252	1,437
Salem	16	207	223	24	211	235
Somerset	12	254	272	22	257	285
Sussex	15	148	163	21	161	182
Union	54	275	329	144	271	1,115
Warren	24	209	233	22	216	249
Total	1,042	14,536	15,578	2,223	15,774	18,007

TABLE 18
TEACHERS IN DAY SCHOOLS PAID THE DIFFERENT ANNUAL SALARIES.

COUNTIES.	AMOUNT OF SALARY PAID.																			
	(This table includes everything but evening, vocational (day and evening), manual training (day and evening) and foreign-born evening school teachers).																			
	Less than \$300—Men.	Less than \$300—Women.	\$300 to \$399—Men.	\$300 to \$399—Women.	\$400 to \$499—Men.	\$400 to \$499—Women.	\$500 to \$599—Men.	\$500 to \$599—Women.	\$600 to \$699—Men.	\$600 to \$699—Women.	\$700 to \$799—Men.	\$700 to \$799—Women.	\$800 to \$899—Men.	\$800 to \$899—Women.	\$900 to \$999—Men.	\$900 to \$999—Women.	\$1,000 to \$1,099—Men.	\$1,000 to \$1,099—Women.	\$1,100 to \$1,199—Men.	\$1,100 to \$1,199—Women.
Atlantic	1	1	1	1	2	2	1	1	2	2	1	1	1	1	1	1	1	1	1	1
Bergen	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Burlington	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Camden	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cape May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cumberland	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Essex	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gloucester	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Hudson	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Hunterdon	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mercer	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Middlesex	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Monmouth	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Morris	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ocean	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Passaic	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Salem	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Somerset	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Sussex	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Union	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Warren	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total	1	14	2	7	4	74	13	402	87	1,337	23	3,730	29	2,347	37	2,012	51	1,509	44	1,024

TABLE 18—Continued
TEACHERS IN DAY SCHOOLS PAID THE DIFFERENT ANNUAL SALARIES.

COUNTIES.	AMOUNT OF SALARY PAID.														Total								
	\$1,200 to \$1,399—Men.	\$1,200 to \$1,399—Women.	\$1,300 to \$1,399—Men.	\$1,300 to \$1,399—Women.	\$1,400 to \$1,499—Men.	\$1,400 to \$1,499—Women.	\$1,500 to \$1,599—Men.	\$1,500 to \$1,599—Women.	\$1,600 to \$1,699—Men.	\$1,600 to \$1,699—Women.	\$1,700 to \$1,799—Men.	\$1,700 to \$1,799—Women.	\$1,800 to \$1,899—Men.	\$1,800 to \$1,899—Women.		\$1,900 to \$1,999—Men.	\$1,900 to \$1,999—Women.	\$2,000 to \$2,499—Men.	\$2,000 to \$2,499—Women.	\$2,500 to \$2,999—Men.	\$2,500 to \$2,999—Women.	\$3,000 and Over—Men.	\$3,000 and Over—Women.
Atlantic	3	8	10	28	10	17	11	5	14	2	13	2	20	1	8	1	1	1	1	13	1	4	3
Bergen	10	28	10	17	9	5	1	1	9	1	1	3	4	1	13	1	2	1	1	19	1	1	6
Burlington	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1
Camden	2	2	1	2	11	2	1	1	1	4	1	4	6	1	6	2	1	1	1	5	2	1	1
Cape May	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1
Cumberland	3	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1
Essex	21	166	13	523	107	13	1	1	33	219	17	79	19	10	87	1	46	8	3	57	47	92	84
Gloucester	...	1	...	...	1	2	1	1	2	1	...	...	...	...	1	...	...	...	...	...	...	...	...
Hudson	3	216	14	200	61	6	3	2	10	398	8	48	3	32	20	81	18	10	72	60	60	26	43
Hunterdon	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mercer	2	41	...	13	4	5	...	...	3	9	4	6	4	4	5	4	2	4	6	2	2	1	1
Middlesex	6	20	4	22	2	3	...	...	9	2	5	...	5	...	3	...	...	...	15	...	...	...	...
Monmouth	5	14	6	12	2	4	...	...	10	1	6	3	2	...	3	...	...	...	10	...	...	...	...
Morris	3	13	5	4	1	4	...	...	4	...	3	1	...	...	4	...	...	...	5	...	...	...	...
Ocean	...	...	1	...	...	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...
Passaic	9	23	8	16	12	6	...	...	11	23	7	2	6	3	6	...	...	...	26	...	...	...	...
Salem	...	1	1	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Somerset	2	5	1	4	1	2	...	...	2	1	1	...	4	...	2	...	...	...	1	...	...	...	...
Sussex	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Union	2	50	3	20	13	4	...	...	13	13	5	4	10	4	8	4	...	...	22	...	...	...	...
Warren	1	...	2	...	1	5	...	...	8	...	1	...	...	...	...	...	...	...	1	...	...	...	...

TABLE 19
PROFESSIONAL TRAINING OF TEACHERS.

COUNTIES.	NORMAL GRADUATE.						Total.
	Trenton.						
	Montclair.	Newark.	City Training Schools.	Other Normal Schools.	Number of College Graduates.	Not Graduates of Higher Institutions.	
Atlantic	98	18	2	217	123	102	563
Bergen	262	215	124	430	251	114	1,442
Burlington	119	3	3	48	47	176	402
Camden	188	3	2	141	108	233	563
Cape May	35	.....	.....	25	43	75	181
Cumberland	112	1	.....	21	53	182	378
Essex	267	215	525	947	538	211	2,563
Gloucester	51	.....	.....	47	40	153	236
Hudson	232	236	201	388	379	334	2,833
Hunterdon	56	5	7	8	34	83	197
Mercer	312	2	2	43	104	106	772
Middlesex	294	35	102	127	93	169	831
Monmouth	227	23	21	145	114	164	702
Morris	92	67	30	63	30	128	475
Ocean	32	2	.....	20	29	73	172
Passaic	93	123	72	211	202	83	1,344
Salem	43	2	1	43	26	123	235
Somerset	61	14	17	74	51	67	265
Sussex	35	9	10	22	21	80	182
Union	122	43	34	213	198	90	1,059
Warren	43	5	3	15	23	146	249
Total	2,768	1,131	1,206	3,947	2,615	3,003	17,113

TABLE 20
ENROLLMENT IN DAY SCHOOLS.

COUNTIES.	Number of Pupils Enrolled in One-Room Rural Schools.			Number of Pupils Enrolled in Two-Room Rural Schools.			Number of Pupils Enrolled in Kindergarten.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Atlantic	385	383	767	534	438	973	633	575	1,198
Bergen	299	289	588	405	350	755	1,784	1,754	3,538
Burlington	534	523	1,057	538	468	1,004	1,180	1,156	2,336
Camden	430	408	838	413	445	858	409	491	900
Cape May	179	199	378	316	314	630	60	60	120
Cumberland	495	363	847	398	333	731	761	7,430	15,151
Essex	54	45	99	63	54	147	53	46	104
Gloucester	404	344	748	719	903	1,413	2,738	2,531	5,269
Hudson	1,117	1,109	2,226	237	237	474	59	65	124
Hunterdon	370	304	674	317	190	407	1,173	1,230	2,393
Mercer	456	465	921	373	309	682	1,044	949	1,993
Middlesex	945	830	1,765	593	535	1,128	454	459	913
Monmouth	599	554	1,153	579	913	1,391	199	198	396
Morris	402	363	765	259	290	549	101	73	173
Ocean	285	297	473	151	151	302	2,532	2,345	4,877
Passaic	663	499	1,162	243	139	382	59	31	90
Salem	739	623	1,362	430	353	783	290	293	583
Somerset	799	704	1,503	154	136	290	151	134	285
Sussex	37	29	66	65	73	144	1,016	931	1,947
Union	673	667	1,340	379	267	646	.....	.....	.....
Warren .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	9,736	8,841	18,577	7,353	6,379	14,231	20,631	19,747	40,428

TABLE 20—Continued
ENROLLMENT IN DAY SCHOOLS.

COUNTIES.	Number of Pupils Enrolled in Grades I to IV, Inclusive.			Number of Pupils Enrolled in Grades V to VIII, Inclusive.			Number of Pupils Enrolled in Grades IX to XII, Inclusive.			Number of Pupils Enrolled in Sub-Normal Classes.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Atlantic	3,353	3,630	7,478	2,310	3,403	4,713	713	894	1,613	68	23	91
Bergen	11,379	10,599	21,977	7,510	7,549	14,959	1,743	2,013	3,761	67	29	106
Burlington	3,700	2,477	7,237	1,913	2,070	3,983	303	653	1,051	10	6	16
Camden	9,374	8,939	18,313	4,531	4,393	9,423	917	1,073	1,990	197	60	257
Cape May	967	904	1,871	636	639	1,255	263	331	593	7	4	11
Cumberland	2,999	2,765	5,764	1,319	1,954	3,274	608	814	1,423	46	17	63
Essex	27,791	26,447	54,238	13,704	19,340	33,044	5,095	5,343	10,437	440	361	701
Gloucester	2,435	2,159	4,594	1,251	1,350	2,601	244	446	690	...	...	...
Hudson	26,941	26,346	53,287	16,769	17,136	33,905	3,455	3,963	7,453	246	93	338
Hunterdon	823	813	1,641	576	667	1,243	283	426	709	...	...	...
Mercer	6,183	6,033	12,214	3,493	3,516	7,009	847	1,103	1,955	239	117	345
Middlesex	8,294	7,750	15,994	3,951	4,134	8,085	849	1,013	1,863	53	30	83
Monmouth	4,394	4,533	9,433	3,236	3,434	6,780	1,159	1,440	2,599	31	34	65
Morris	3,233	3,070	6,293	2,000	1,940	3,946	1,733	1,002	1,740	14	19	33
Ocean	3,753	3,673	7,424	526	711	1,230	265	343	613	...	...	...
Passaic	11,303	10,600	21,903	7,641	7,639	15,321	1,633	1,561	3,234	119	59	169
Salem	1,973	1,736	3,767	1,113	1,311	2,324	230	353	587	...	...	...
Somerset	1,901	1,344	3,745	1,081	1,099	2,180	399	485	884	47	7	54
Sussex	330	339	1,719	533	594	1,117	173	313	486	27	8	35
Union	8,323	8,233	17,115	5,505	5,393	10,898	1,557	1,900	3,496	113	53	165
Warren	1,731	1,651	3,383	897	1,033	1,930	377	533	945	...	...	...
Total	140,151	132,307	272,853	86,961	83,714	174,686	23,139	26,070	43,199	1,363	323	2,491

TABLE 20—Continued
ENROLLMENT IN DAY SCHOOLS.

COUNTIES.	Training Classes.			Anæmic Pupils.			Backward and Incurable Classes.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Atlantic
Bergen
Burlington
*Camden	17	17	.....	.....	.....	.....	.....	.....
Cape May
Cumberland
Essex
Gloucester
Hudson	82	82	16	24	40	23	10	33
Hunterdon
Mercer	21	14	35
Middlesex
Monmouth
Morris
Ocean
Passaic
Salem
Somerset
Sussex
Union
Warren
Total	89	89	99	16	24	40	49	24	73

*Normal.

TABLE 20—Continued
ENROLLMENT IN DAY SCHOOLS.

COUNTIES.	Other Special Classes.			Number of Pupils Enrolled in Blind Classes.			Number of Pupils Enrolled in Deaf Classes.			Number of Pupils Enrolled During Year.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Atlantic	8,481	8,329	16,810
Bergen	23,092	22,572	45,664
Burlington	7,333	7,351	14,684
Camden	16,241	16,325	32,566
Cape May	2,417	2,441	4,858
Cumberland	6,346	6,295	12,631
Essex	*57	20	77	14	9	23	47	47	94	60,026	59,015	119,041
Gloucester	5,211	5,038	10,249
Hudson	9	8	17	5	2	7	50,237	49,139	99,376
Hunterdon	3,095	3,322	6,417
Mercer	12,431	12,401	24,832
Middlesex	14,859	14,610	29,469
Monmouth	11,852	11,290	23,142
Morris	7,653	7,693	15,346
Ocean	2,404	2,465	4,869
Passaic	23,656	22,603	46,259
Salem	4,294	4,133	8,427
Somerset	4,847	4,693	9,540
Sussex	2,722	2,733	5,455
Union	†14	11	25	.....	.....	.....	.....	.....	.....	17,100	16,696	33,796
Warren	4,047	4,296	8,343
Total	71	31	102	23	17	40	52	49	101	237,909	233,525	471,434

*Jr. college.
†Open air.

TABLE 21
AGES OF PUPILS ENROLLED IN DAY SCHOOLS.

COUNTIES.	NUMBER OF PUPILS BETWEEN							
	Four and Five Years of Age—Boys.	Four and Five Years of Age—Girls.	Five and Six Years of Age—Boys.	Five and Six Years of Age—Girls.	Six and Seven Years of Age—Boys.	Six and Seven Years of Age—Girls.	Seven and Eight Years of Age—Boys.	Seven and Eight Years of Age—Girls.
Atlantic	148	151	701	686	784	777	855	836
Bergen	690	670	2,052	1,965	2,364	2,237	2,377	2,294
Burlington	32	26	543	577	689	683	2,765	701
Camden	108	173	832	866	1,726	1,717	1,782	1,800
Cape May	39	41	243	223	215	243	215	212
Cumberland .....	.....	.....	486	457	602	556	612	594
Essex	2,863	2,843	5,426	5,280	5,948	5,743	5,895	5,890
Gloucester	21	23	452	419	476	476	577	526
Hudson	767	720	4,071	3,878	5,057	4,855	5,376	5,063
Hunterdon	39	55	231	270	311	299	297	329
Mercer	529	528	1,141	1,151	1,243	1,232	1,228	1,246
Middlesex	242	278	1,232	1,229	1,740	1,671	1,639	1,613
Monmouth	202	209	919	939	1,020	976	1,001	993
Morris	27	28	693	674	781	732	744	741
Ocean	48	41	155	144	197	225	230	212
Passaic	621	597	2,321	2,144	2,416	2,324	2,312	2,311
Salem	17	21	326	326	445	422	433	447
Somerset	113	116	350	353	408	459	591	490
Sussex	94	81	244	196	290	219	276	255
Union	262	252	1,279	1,260	1,742	1,632	1,722	1,704
Warren	5	6	242	242	405	426	415	422
Total	7,185	7,059	24,056	22,503	28,917	28,152	29,239	28,509

TABLE 21—Continued
AGES OF PUPILS ENROLLED IN DAY SCHOOLS.

COUNTIES.	NUMBER OF PUPILS BETWEEN									
	Eight and Nine Years of Age—Boys.	Eight and Nine Years of Age—Girls.	Nine and Ten Years of Age—Boys.	Nine and Ten Years of Age—Girls.	Ten and Eleven Years of Age—Boys.	Ten and Eleven Years of Age—Girls.	Eleven and Twelve Years of Age—Boys.	Eleven and Twelve Years of Age—Girls.	Twelve and Thirteen Years of Age—Boys.	Twelve and Thirteen Years of Age—Girls.
Atlantic	876	790	946	894	861	830	818	763	756	702
Bergen	2,312	2,294	2,244	2,234	2,224	2,192	2,085	2,145	2,062	1,996
Burlington	755	751	797	740	721	738	753	679	672	679
Camden	1,715	1,777	1,741	1,618	1,722	1,790	1,659	1,679	1,567	1,544
Cape May	219	225	215	228	212	224	230	214	215	192
Cumberland	676	642	637	596	591	675	649	603	602	567
Essex	5,942	5,788	5,428	5,672	5,545	5,526	5,226	5,304	5,022	5,017
Gloucester	537	485	528	446	534	544	494	461	472	464
Hudson	5,129	5,064	4,887	4,946	5,140	4,979	4,845	4,845	4,866	4,722
Hunterdon	295	216	276	212	242	280	229	294	287	299
Mercer	1,240	1,239	1,170	1,120	1,160	1,121	1,126	1,126	1,127	1,060
Middlesex	1,501	1,553	1,461	1,520	1,491	1,419	1,367	1,366	1,314	1,286
Monmouth	1,066	1,064	1,066	1,042	1,069	1,053	1,069	1,063	1,044	1,060
Morris	779	753	674	720	724	691	705	663	716	683
Ocean	241	204	221	212	247	259	247	203	205	211
Passaic	2,327	2,299	2,252	2,256	2,225	2,290	2,196	2,173	2,170	2,160
Salem	426	385	429	421	420	415	396	412	401	353
Somerset	463	478	512	446	477	452	425	472	449	390
Sussex	247	279	265	247	260	299	240	240	250	286
Union	1,792	1,717	1,607	1,606	1,727	1,692	1,633	1,479	1,517	1,419
Warren	452	427	382	457	466	471	374	407	332	399
Total	29,126	28,545	27,727	27,637	28,289	27,960	26,225	28,612	26,106	25,267

TABLE 21—Continued
AGES OF PUPILS ENROLLED IN DAY SCHOOLS.

COUNTIES.	NUMBER OF PUPILS BETWEEN
Atlantic	
Bergen	
Burlington	
Camden	
Cape May	
Cumberland	
Essex	
Gloucester	
Hudson	
Hunterdon	
Mercer	
Middlesex	
Monmouth	
Morris	
Ocean	
Passaic	
Salem	
Somerset	
Sussex	
Union	
Warren	
Total	

TABLE 21—Continued
AGES OF PUPILS ENROLLED IN DAY SCHOOLS.

COUNTIES.	NUMBER OF PUPILS BETWEEN								TOTAL.		GRAND TOTAL.
	Seventeen and Eighteen Years of Age—Boys.	Seventeen and Eighteen Years of Age—Girls.	Eighteen and Nineteen Years of Age—Boys.	Eighteen and Nineteen Years of Age—Girls.	Nineteen and Twenty Years of Age—Boys.	Nineteen and Twenty Years of Age—Girls.	Twenty Years of Age (and over)—Boys.	Twenty Years of Age (and over)—Girls.	Four to Twenty Years (and over)—Boys.	Four to Twenty Years (and over)—Girls.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	
Atlantic	104	126	63	56	26	18	4	4	8,481	8,339	16,819
Bergen	172	217	87	83	21	20	6	4	22,092	22,572	44,664
Burlington	47	57	23	34	6	15	6	4	7,333	7,351	14,684
Camden	107	143	47	61	19	23	5	10	16,241	16,226	32,466
Cape May	30	49	22	16	7	11	3	3	2,417	2,441	4,858
Cumberland	80	99	30	54	13	9	3	3	6,345	6,285	12,631
Essex	673	616	275	203	123	68	67	31	60,026	59,015	119,041
Gloucester	46	59	9	21	7	6	1	2	5,211	5,033	10,240
Hudson	301	301	156	150	22	23	6	102	50,337	49,189	99,526
Hunterdon	38	66	11	20	3	10	1	1	3,895	3,322	7,217
Mercer	101	116	27	54	13	6	4	4	12,431	12,461	24,892
Middlesex	79	93	32	36	10	10	2	2	14,859	14,610	29,469
Monmouth	103	139	91	74	22	22	10	3	11,353	11,290	22,643
Morris	98	120	31	51	8	12	2	2	7,653	7,692	15,345
Ocean	33	59	16	19	3	4	3	1	2,404	2,465	4,869
Passaic	142	130	70	48	20	22	14	16	22,656	22,603	45,259
Salem	31	59	19	18	7	3	1	1	4,294	4,123	8,417
Somerset	57	57	18	18	5	12	1	1	4,847	4,696	9,543
Sussex	23	46	19	16	3	7	1	1	2,723	2,783	5,506
Union	182	237	67	85	22	29	2	3	17,160	16,696	33,856
Warren	44	96	17	27	5	6	1	2	4,047	4,266	8,313
Total	2,556	3,051	1,139	1,213	383	33	136	203	287,909	283,525	571,434

TABLE 22
REGULAR DAY SCHOOL ATTENDANCE.

TABLE 22—Continued

REGULAR DAY SCHOOL ATTENDANCE.

COUNTIES.	Times Tardy.	The Sum of Number of Teaching Sessions as Reported in all Registers.	Average Number of Cases of Tardiness Per Session.	Per Cent. of Attendance.	Average Daily Attendance.	Number of Pupils Not Absent or Tardy During Year.
Atlantic	40,043	132,163	.30298	.87151	13,025	246
Bergen	61,173	397,851	.15375	.89740	34,983	1,165
Burlington	27,294	114,700	.25796	.83699	10,076	253
Camden	37,203	243,259	.15293	.83469	23,252	385
Cape May	9,754	41,972	.22239	.86905	3,295	86
Cumberland	12,445	102,452	.12145	.88158	9,034	363
Essex	117,832	1,014,561	.11614	.89710	98,597	3,083
Gloucester	17,548	80,138	.21899	.84616	6,923	170
Hudson	76,929	800,551½	.09609	.90890	78,895	3,150
Hunterdon	12,853	65,453	.19637	.83973	4,309	98
Mercer	31,357	202,605	.15479	.89045	12,353	388
Middlesex	36,088	232,639	.15513	.88114	22,333	525
Monmouth	37,244	203,694	.18294	.89098	16,216	475
Morris	13,323	130,365	.10143	.89436	11,537	546
Ocean	8,202	45,295	.18063	.85914	3,459	59
Passaic	39,839	410,619½	.09714	.91797	37,003	1,723
Salem	13,235	65,866	.29133	.85354	6,633	157
Somerset	22,900	81,462	.23111	.89833	6,851	76
Sussex	8,429	49,904	.16870	.85799	3,790	142
Union	43,888	371,235½	.15512	.90591	26,679	931
Warren	7,949	72,797½	.09657	.89657	6,371	363
Total	673,819	4,759,673	.14156	.89838	435,309	14,278

TABLE 22—Continued

REGULAR DAY SCHOOL ATTENDANCE.

COUNTIES.	Number of Sessions Truant.	Total Number of Days Transported.	Number of Pupils Transported Within the Districts for Whom the Cost of Transportation is Paid.	Number of Pupils Transported from Without the Districts for Whom the Cost of Transportation is Paid.	Total Number Transported.	Pupils Enrolled Who Have Attended Public Schools in Other Districts in the State During the Present School Year.	Number of Cases of Suspension or Expulsion During the School Year.
Atlantic	574	90,535	441	313	754	590	57
Bergen	2,378	204,693	451	1,120	1,571	1,659	145
Burlington	2,623½	215,516	1,938	546	2,484	1,767	93
Camden	4,863	61,579	328	320	648	1,063	157
Cape May	31	46,393½	227	155	382	1,159	20
Cumberland	634	126,613½	883	274	1,157	542	58
Essex	24,222	90,165½	650	109	759	2,367	191
Gloucester	20,356	102,273	313	545	858	491	80
Hudson	20,635	176,026	246	20	266	2,263	20
Hunterdon	104	40,976	127	203	330	622	13
Mercer	3,318	159,012	1,020	370	1,390	803	63
Middlesex	5,333	149,250	1,106	265	1,371	1,207	149
Monmouth	357	212,772	397	791	1,188	1,225	93
Morris	647	144,112	300	457	1,257	1,083	80
Ocean	277	75,121½	392	240	632	263	46
Passaic	1,415	22,401½	254	28	280	1,322	26
Salem	128	59,255½	447	374	821	506	25
Somerset	200	63,720	263	97	360	620	45
Sussex	113	73,331	339	400	739	507	29
Union	2,451	26,897½	42	191	234	1,476	116
Warren	306	73,864½	203	424	707	456	64
Total	71,720½	2,272,539	11,359	7,229	18,579	19,979	1,634

TABLE 23
PUPILS FOR WHOM TUITION IS PAID AND RECEIVED,

COUNTIES.	Number of Pupils Attending High Schools or Registered High Schools in Other Districts for whom the Tuition is Paid by Your District.	Contractual Amount of Tuition Paid for High School Pupils.	Number of Pupils Attending Schools in Other Districts Below High School Grade for whom the Tuition is Paid by Your District.	Contractual Amount of Tuition Paid for Pupils Below High School.	Amount Paid for Transportation of all High School Pupils to Other Districts.	Amount Paid for Transportation of all Pupils Below High School to Other Districts.	Total Amount Paid for Transportation to Other Districts.	Amount Paid for Transportation of Pupils Attending High Schools Within the District.
Atlantic	227	\$8,237 50	97	\$935 20	\$12,005 70	\$671 65	\$13,277 35	\$638 15
Bergen	1,874	73,313 13	178	1,486 75	22,867 69	50 95	22,918 64	.....
Burlington	503	23,300 75	325	4,987 75	20,625 76	1,714 92	22,340 68	926 14
Camden	470	26,357 00	341	9,531 00	10,514 68	.....	10,514 68	.....
Cape May	149	5,987 30	40	773 40	5,377 35	3,297 62	8,674 97	7,816 00
Cumberland	163	6,615 00	95	1,702 00	8,933 43	823 35	9,806 78	5,992 25
Essex	60	.....	53	.....	2,864 80	158 12	3,142 92	1,184 60
Gloucester	471	13,422 52	350	9,700 70	16,067 06	2,318 89	18,385 95	810 00
Hudson	745	.....	.....	.....	2,467 70	.....	2,467 70	.....
Hunterdon	427	.....	573	.....	28,321 78	208 43	28,530 20	.....
Mercer	253	12,325 00	150	2,742 50	5,647 83	1,029 61	6,677 44	933 13
Middlesex	617	.....	698	.....	18,907 71	3,255 92	22,163 63	906 00
Monmouth	390	34,499 00	639	11,502 00	26,217 95	1,833 85	28,100 80	3,251 00
Morris	441	30,151 25	426	7,447 00	19,157 63	1,286 50	20,424 13	8,573 46
Ocean	319	7,500 00	145	2,285 00	12,769 69	2,748 75	15,518 44	1,467 84
Passaic	356	23,250 00	86	1,750 00	7,805 04	.....	7,805 04	.....
Salem	355	15,615 00	331	4,066 00	14,273 56	436 21	14,714 77	4,544 70
Somerset	344	18,423 00	340	8,702 00	14,611 90	1,000 00	15,611 90	2,096 38
Sussex	330	13,924 50	271	8,665 50	27,831 41	650 00	28,481 41	.....
Union	302	9,509 27	26	1,707 00	2,510 38	13 00	2,523 38	881 85
Warren	307	12,920 21	343	5,660 71	12,233 83	10,053 93	22,286 76	.....
Total	8,898	\$330,515 48	6,543	\$78,634 51	\$292,837 86	\$31,578 89	\$324,416 55	\$40,021 50

TABLE 23—Continued

PUPILS FOR WHOM TUITION IS PAID AND RECEIVED.

COUNTIES.	Amount Paid for Trans- tation of Pupils Attending Schools Below High School Within the District.		Total Amount Paid for Transportation of Pupils Within the District.		Number of Pupils Attend- ing High Schools in Your Dis- trict Approved or Register- ed High Schools in Your District. Tuition Is Paid by Other Districts.		Number of Pupils Attend- ing Schools in Your Dis- trict Below High School Grade for Whom the Tui- tion Is Paid by Other Dis- tricts.		Total Obligation of Tui- tion Received in High School.		Total Obligation of Tuition Received Below High School.		Total Amount Received for Tuition.	
	\$	¢	\$	¢					\$	¢	\$	¢	\$	¢
Atlantic	\$14,728	55	\$15,364	70	249		139		\$9,284	03	\$1,008	92	\$12,590	08
Bergen	11,336	34	11,336	34	1,335		217		70,290	59	6,116	25	77,296	61
Burlington	44,610	13	45,536	65	497		407		22,242	00	8,325	12	30,567	12
Camden	6,187	62	6,187	62	439		293		25,959	00	8,305	00	31,961	46
Cape May	4,465	71	12,281	71	54		36		5,962	59	797	00	6,675	45
Cumberland	15,618	29	21,611	14	224		108		87	87	1,498	50	10,235	50
Essex	7,980	07	9,114	67	138		61						12,182	85
Gloucester	8,554	49	9,364	40	501		299		17,732	09	9,189	15	26,922	15
Hudson	4,483	49	4,483	40	736				37,287	96			37,287	96
Hunterdon	5,629	09	5,629	09	399								24,592	83
Mercer	26,062	70	27,015	83	259		616		17,140	00	2,177	00	22,147	68
Middlesex	22,262	92	26,163	92	466		172		26,301	87	15,612	48	41,914	35
Monmouth	20,290	50	22,481	50	878		735		32,817	09	12,368	00	45,085	00
Morris	19,781	12	28,254	59	514		295		22,780	00	7,096	70	31,260	70
Ocean	10,993	57	12,466	41	214		169		7,376	00	2,701	25	10,076	25
Passaic	7,905	07	7,905	07	332		48						19,899	56
Salem	8,515	47	12,060	17	256		299		10,636	09	2,692	25	14,294	35
Somerset	6,168	04	8,264	42	300		499		12,265	09	5,412	00	14,400	45
Sussex	11,273	19	11,273	19	273		292		11,976	00	6,748	50	18,723	50
Union	2,222	29	3,104	14	453		112		21,872	55	2,222	10	25,165	65
Warren	16,567	91	16,567	91	296		248		14,442	00	4,027	25	12,469	25
Total	\$275,540	23	\$315,561	78	8,933		6,140		\$368,612	33	\$99,622	09	\$627,629	85

TABLE 24
EVENING SCHOOLS.

REGULAR EVENING SCHOOLS—NOT INCLUDING FOREIGN-BORN, MANUAL TRAINING OR VOCATIONAL.

COUNTIES.	Number of Evenings the Schools Were Maintained, Including Legal Holidays and Institute Days.	Under Fourteen Years.	Number of Male Pupils Between Fourteen and Twenty Years of Age.	Number of Male Pupils Over Twenty Years of Age.	Total Number of Male Pupils.	Under Fourteen Years.	Number of Female Pupils Between Fourteen and Twenty Years of Age.	Number of Female Pupils Over Twenty Years of Age.	Total Number of Female Pupils.	Under Fourteen Years.	Total Number of Pupils Between Fourteen and Twenty Years of Age.	Total Number of Pupils Over Twenty Years of Age.
Atlantic	68	.....	48	37	85	.....	40	96	136	.....	.....	132
Bergen	70	.....	10	8	18	.....	1	1	2	.....	88	122
Burlington	71	.....	173	67	240	.....	44	30	74	.....	217	97
†Camden	16	.....	27	5	32	.....	17	8	4	.....	2	11
Cape May	64	.....	4,634	1,945	7,344	472	3,370	2,090	5,932	1,157	44	13
Cumberland	81	715	24	11	35	.....	12	22	35	.....	8,064	4,086
†Essex	64	.....	1,886	1,005	3,591	.....	1,007	642	1,649	.....	36	24
Gloucester	75	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,903	2,637
†Hudson .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hunterdon	82	.....	621	348	969	.....	351	134	476	.....	972	472
†Mercer	155	.....	138	458	596	.....	134	179	313	.....	272	637
†Middlesex	48	.....	2	13	15	.....	3	21	24	.....	5	24
Monmouth	64	.....	56	52	107	.....	61	86	147	.....	116	133
Morris .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ocean .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
†Passaic	88	.....	590	672	1,262	.....	697	757	1,434	.....	1,287	1,409
Salem .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sussex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Union	65	.....	280	286	606	.....	364	133	402	.....	644	364
Warren .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	72	715	8,649	5,545	14,909	472	6,002	4,177	10,661	1,157	14,661	9,722

*Rate is higher because all teachers did not teach forty-eight nights. †All Evening Schools. ‡Includes Vocational Evening. §All Evening School Teachers. ¶Include Foreign Born.

TABLE 24—Continued
EVENING SCHOOLS.
REGULAR EVENING SCHOOLS—NOT INCLUDING FOREIGN-BORN, MANUAL TRAINING OR VOCATIONAL.

COUNTIES.	Total Number of Pupils Enrolled in Evening Schools.	Number of Men Teachers in Evening Schools.	Number of Women Teachers in Evening Schools.	Total Number of Teachers Employed in Evening Schools.	Contractual Amount Paid Men Teachers in Evening Schools.	Contractual Amount Paid Women Teachers in Evening Schools.	Total Contractual Amount Paid Teachers in Evening Schools.	Average Salary Per Night Paid to Men Teachers.	Average Salary Per Night Paid to Women Teachers.	Amount Expended for Salaries of Janitors.
Atlantic	220	2	9	11	\$572 00	\$1,678 00	\$2,250 00	\$4 20	\$3 74	\$375 83
Bergen	20	2	2	2	.....	160 00	160 00	.....	1 25	.....
Burlington	314	12	3	15	1,881 00	299 50	2,180 50	3 00	2 27	.....
Camden	13	2	1	3	40 00	20 00	60 00	1 50	1 50	.....
Cape May	57	1	1	2	160 00	160 00	320 00	2 50	2 50	.....
Cumberland	13,376	208	187	395	89,385 00	53,074 75	132,459 75	4 12	3 59	225 00
Essex	70	2	.....	2	640 00	.....	640 00	5 00	.....	.....
Gloucester	5,240	89	112	201	18,228 80	12,192 00	31,420 80	3 10	2 61	.....
Hudson .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hunterdon .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mercer	1,444	19	26	55	4,223 00	7,124 00	11,347 00	2 72	2 42	.....
Middlesex	909	9	19	28	3,121 46	2,016 00	5,137 46	3 19	2 54	.....
Monmouth	39	1	2	3	56 00	132 00	188 00	3 50	2 00	.....
Morris	254	3	9	12	610 00	1,501 00	2,111 00	3 17	2 80	.....
Ocean .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Passaic	2,686	23	28	60	8,902 80	8,181 50	17,083 50	3 16	3 22	.....
Salem .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sussex .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Union	1,008	27	23	50	4,683 00	2,839 50	8,521 50	2 66	2 56	1,089 80
Warren .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	25,540	407	423	839	\$112,460 45	\$91,332 25	\$203,792 71	\$3 23	\$3 93	\$1,688 32

TABLE 25
COLORED DAY SCHOOLS.

COUNTIES.	Number of Buildings Used Exclusively for Colored Schools.	Number of Colored Teachers Employed.	Average Annual Salary of Each.	Number of Colored Pupils Enrolled in all Day Schools.		
				Boys.	Girls.	Total.
Atlantic	1	40	\$384 80	855	915	1,770
Bergen .....	.....	.....	.....	850	420	770
Burlington	6	14	695 25	295	334	629
Camden	12	48	875 52	949	1,121	2,070
Cape May	5	11	637 93	126	141	277
Cumberland	2	4	551 25	68	69	127
Essex .....	.....	4	1,150 00	2,229	2,572	4,911
Gloucester	6	10	621 00	225	334	459
Hudson .....	.....	.....	.....	.....	.....	.....
Hunterdon .....	.....	.....	.....	.....	.....	.....
Mercer	4	19	806 58	377	415	792
Middlesex .....	.....	.....	.....	.....	.....	.....
Monmouth	7	19	841 21	455	553	1,008
Morris .....	.....	.....	.....	190	201	391
Ocean	1	1	875 00	20	37	57
Passaic .....	.....	1	600 00	77	38	115
Salem	8	15	603 66	315	252	667
Somerset	1	1	600 00	26	20	56
Sussex .....	.....	.....	.....	.....	.....	.....
Union .....	.....	.....	.....	.....	.....	.....
Warren .....	.....	.....	.....	.....	.....	.....
Total	52	187	\$747 87	6,687	7,422	14,109

TABLE 26
APPORTIONMENT OF RESERVE FUNDS FOR YEAR BEGINNING JULY 1, 1918.

COUNTIES.	Number of Teachers.	Total Days' Attendance.	Amount Apportioned from \$350,000.00 State School Fund Appropriation.	Amount Apportioned from \$100,000.00 State Fund Ap- propriation.	Amount Allotted from Rail- road Tax.
Atlantic	574	2,313,083	90,921 66	34,340 90	\$124,331 28
Bergen	1,305	6,438,750	19,353 31	6,796 73	214,239 35
Burlington	405	1,851,574	5,540 64	1,859 33	43,346 69
Camden	917	4,333,831	12,908 53	4,303 53	156,830 32
Cape May	183	614,945	1,340 15	1,343 63	43,490 73
Cumberland	350	1,809,300	5,414 02	1,667 33	33,381 77
Essex	3,610	18,304,095	54,773 05	23,764 90	749,089 98
Gloucester	274	1,237,018	3,791 64	1,238 36	38,734 66
Hudson	2,739	15,915,085	47,634 23	21,798 16	637,094 06
Hunterdon	205	833,744	2,494 89	733 23	24,345 27
Mercer	773	3,731,747	11,106 36	4,500 36	141,854 67
Middlesex	718	3,931,748	11,914 96	3,673 15	112,638 29
Monmouth	667	3,075,895	9,204 29	4,190 16	132,976 75
Morris	443	2,163,595	6,474 33	2,019 35	63,651 41
Ocean	174	646,519	1,934 64	814 99	25,639 07
Passaic	1,372	7,134,374	21,493 47	7,154 50	235,515 00
Salem	206	935,157	2,793 36	1,050 26	33,105 03
Somerset	236	1,333,856	3,951 50	1,339 87	41,913 51
Sussex	179	717,063	2,145 64	866 63	27,001 68
Union	1,001	4,921,463	14,726 95	6,619 24	203,643 34
Warren	241	1,217,381	3,642 83	1,136 24	35,515 03
Total	16,531	83,545,163	\$250,000 00	\$190,000 00	\$93,152,073 06

*Subject, prior to distribution, to any further deductions required.

TABLE 26—Continued

APPORTIONMENT OF RESERVE FUND FOR YEAR BEGINNING JULY 1, 1918.

COUNTIES.	Amount Apportioned 30% State School Tax.	Amount Apportioned Out of 10% Reserve Fund by State Board of Education.	Total Amount Apportioned by State.	Amount Out.	Amount In.	Amount Per Teacher.
Atlantic	\$306,391 36	\$35,043 48	\$479,538 81	\$9,000 00	.....	\$395 41
Bergen	479,723 73	53,302 53	773,313 73	.....	.....	592 57
Burlington	95,941 90	32,690 21	178,343 76	.....	\$32,000 00	440 36
Camden	302,679 68	33,742 19	490,313 30	.....	.....	524 69
Cape May	95,144 82	8,571 65	149,396 37	2,000 00	.....	320 85
Cumberland	72,508 94	32,056 55	143,388 60	.....	24,000 00	409 68
Essex	1,677,354 99	165,372 78	2,671,355 79	20,000 00	.....	739 98
Gloucester	86,734 28	9,637 14	140,086 53	.....	.....	511 08
Hudson	1,538,534 39	149,948 26	2,444,999 13	21,000 00	.....	392 66
Hunterdon	55,633 50	18,181 49	101,943 43	.....	12,000 00	497 23
Mercer	317,639 59	35,293 29	510,454 77	.....	.....	656 11
Middlesex	253,196 16	28,021 80	408,334 36	.....	.....	568 71
Monmouth	295,744 93	31,860 55	473,076 73	1,000 00	.....	709 26
Morris	142,527 61	15,836 40	230,508 10	.....	.....	514 53
Ocean	57,522 71	6,391 41	92,352 83	.....	.....	530 76
Passaic	504,970 98	56,107 89	815,246 34	.....	.....	640 91
Salem	74,128 46	8,236 50	119,318 61	.....	.....	579 21
Somerset	93,863 53	10,429 23	151,502 69	.....	.....	529 72
Sussex	69,461 91	6,717 99	97,183 85	.....	.....	542 92
Union	467,192 12	46,910 24	744,091 89	5,000 00	.....	743 34
Warren	80,196 67	8,910 74	129,701 56	.....	.....	533 13
Total	\$7,053,091 31	\$784,232 37	\$11,344,396 76	\$53,000 00	\$53,000 00	.....

TABLE 27

APPORTIONMENT OF SCHOOL MONIES FOR YEAR BEGINNING JULY 1, 1918.

Amount of State School Tax	\$7,842,323 68
Amount of State Appropriation	100,000 00
Amount of State School Fund Appropriation	250,000 00
Amount of Railroad Tax	\$2,152,073 08

COUNTIES.	Number of Teachers.	Total Days' Attendance.	Amount Apportioned from \$250,000.00 State School Fund Appropriation.	Amount Apportioned from \$100,000.00 State Fund Appropriation.	Amount Allotted from Railroad Tax.	Amount Apportioned 90% State School Tax.	Amount Apportioned Out of 10% Reserve Fund by the State Board of Education.	Total Amount Apportioned by State.
Atlantic	574	2,313,083	96,921 66	\$4,240 99	\$136,831 33	\$306,391 26	\$26,043 48	\$479,528 81
Bergen	1,305	6,432,750	19,252 31	6,796 78	214,239 28	479,722 73	53,302 53	773,313 73
Burlington	405	1,851,574	5,540 64	1,359 32	42,846 69	96,941 90	32,660 21	178,348 76
Camden	917	4,232,831	12,968 53	4,302 53	126,620 22	303,679 63	33,742 19	490,313 30
Cape May	182	614,945	1,840 16	1,348 02	42,490 72	96,144 82	8,571 66	149,395 37
Cumberland	350	1,809,280	5,414 02	1,027 32	32,381 77	72,508 94	32,056 55	143,388 60
Essex	3,610	18,304,086	54,773 06	23,764 99	749,089 96	1,677,354 99	166,372 73	2,671,355 79
Gloucester	274	1,237,018	3,701 64	1,228 86	38,734 66	86,734 26	9,637 14	140,096 58
Hudson	2,739	15,915,085	47,624 23	21,798 16	637,004 08	1,538,534 29	149,948 26	2,444,999 12
Hunterdon	205	833,744	2,494 89	788 23	24,845 37	55,633 50	13,181 49	101,943 48
Mercer	778	3,731,747	11,166 86	4,500 36	141,864 67	317,639 59	36,292 29	510,464 77
Middlesex	718	3,981,748	11,914 96	3,573 15	112,623 29	252,196 16	23,021 80	408,334 36
Monmouth	667	3,075,896	9,204 29	4,190 16	132,076 75	295,744 98	31,860 55	473,076 73
Morris	443	2,163,596	6,474 33	2,019 36	63,651 41	142,527 61	15,836 40	230,509 10
Ocean	174	646,519	1,994 64	814 99	26,639 07	67,522 71	6,391 41	92,352 82
Passaic	1,372	7,184,374	21,498 47	7,154 50	226,515 00	504,970 96	56,107 89	815,246 84
Salem	206	925,157	2,798 26	1,050 26	33,105 03	74,123 46	8,236 50	119,318 61
Somerset	286	1,323,856	3,961 50	1,329 87	41,913 51	93,962 53	10,429 23	151,502 69
Sussex	179	717,033	2,145 64	856 63	27,001 63	60,461 91	6,717 99	97,183 85
Union	1,001	4,921,462	14,726 95	6,619 24	208,642 34	467,192 12	46,910 24	744,091 89
Warren	241	1,217,381	3,642 88	1,126 24	35,815 03	80,196 67	8,910 74	129,701 56
Total	16,531	82,545,162	\$250,000 00	\$100,000 00	\$3,152,073 08	\$7,058,091 31	\$784,232 37	\$11,344,396 76

*Subject, prior to distribution, to any further deductions required.

SECTION B

ATTENDANCE BY COUNTIES AND DISTRICTS

FOR YEAR ENDING JUNE 30, 1919

TOTAL ATTENDANCE FOR STATE

COUNTIES	Total Attendance	Loss	Gain
Atlantic	2,213,915		118,793
Bergen	6,765,911		241,725
Burlington	1,904,223		204,913
Camden	4,439,234		350,632
Cape May	584,147	5,957	
Cumberland	1,802,702		68,394
Essex	18,798,677		729,738
Gloucester	1,290,924		99,996
Hudson	15,899,578		329,776
Hunterdon	833,753		42,423
Mercer	3,647,181		87,603
Middlesex	4,368,757		245,230
Monmouth	33,081,025		200,441
Morris	2,216,461		85,158
Ocean	621,022		30,289
Passaic	7,316,906		65,907
Salem	1,050,023		85,104
Somerset	1,335,437		54,360
Sussex	721,140		28,562
Union	5,280,669		364,187
Warren	1,217,711		49,530
Total	85,389,396	5,957	3,482,761

ATLANTIC COUNTY

TOWNSHIPS	Total Attendance	Loss	Gain
Absecon	22,682½		182
Atlantic City	1,233,515		46,532
*Brigantine .....	.....		.....
Buena Vista	159,645½		19,057½

ATLANTIC COUNTY—*Continued*

TOWNSHIPS	Total Attendance	Loss	Gain
Egg Harbor City	76,822	.....	7,438
Egg Harbor Township	38,537½	.....	3,487½
*East Atlantic City .....	.....	.....	.....
Folsom	7,187	231	.....
Galloway	43,757	.....	5,419½
Hamilton	70,715½	.....	5,764
Hammonton	216,467½	.....	8,765
Linwood	12,114	.....	1,099
*Longport .....	.....	.....	.....
Margate City	4,708	.....	390½
Mullica Township	22,441½	.....	3,492½
Northfield	19,562½	.....	1,154½
Pleasantville	197,645	.....	5,828
Port Republic	7,018	971	.....
Somers Point	14,184	.....	879½
Ventnor	48,764	.....	8,327
Weymouth	18,148½	.....	2,178
Total	2,213,915	1,202	119,995

*No attendance.

BERGEN COUNTY

Allendale	27,284	499	.....
Alpine	8,123	673	.....
Bergenfield	126,851½	.....	4,430
Bogota	107,142	.....	14,103½
Carlstadt	140,321½	.....	52
Cliffside Park	222,390½	.....	3,784½
Closter	54,506	6,114½	.....
Cresskill	28,034	.....	1,123½
Delford	30,164	452	.....
Demarest	16,777½	.....	905
Dumont	98,832	7,723½	.....
East Paterson	70,620	.....	6,162½
East Rutherford	184,223½	18,080	.....
Edgewater	99,737½	97½	.....
Emerson	29,562½	1,081½	.....
Englewood	375,902½	.....	19,839½
Englewood Cliffs	7,258½	255½	.....
Fairview	207,453½	.....	20,585½
Fort Lee	162,622	.....	7,587
Franklin	32,551½	.....	242½
Garfield	710,877	.....	47,211
Glen Rock	58,072	.....	4,030
Harrington Park	17,283	.....	1,905
*Harrington Township .....	.....	.....	.....
Hasbrouck Heights	112,425	.....	206½
Haworth	16,219½	386½
Hillsdale	49,261½	5,858½
Hohokus	16,160½	341

COMMISSIONER OF EDUCATION.

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BERGEN COUNTY—Continued

TOWNSHIPS	Total Attendance	Loss	Gain
Hohokus Township	47,584½	8,190½
Leonia	120,255½	.....	1,489½
Little Ferry	97,753	.....	1,531
Lodi Borough	335,698	.....	9,982½
Lodi Township	23,711½	2,993½	.....
Lyndhurst	340,237	.....	26,233
Maywood	43,073½	1,970½	.....
Midland Township	39,308½	.....	2,106½
Midland Park	69,587	1,125½	.....
Moonachie	35,648	.....	1,423
Montvale	16,359	1,537	.....
New Barbadoes	616,199½	.....	34,492
North Arlington	45,019	.....	3,201½
Northvale	24,433½	.....	2,252
Norwood	27,744	.....	2,281½
Oakland	16,916½	301	.....
Old Tappan	6,959½	.....	192
Orvil Township	35,977	.....	1,773½
Overpeck Township	257,377	.....	4,177
Palisades Park	87,348	.....	3,958
Palisades Township	50,711	.....	1,056½
Park Ridge	67,074½	543½	.....
Ramsey	72,416	.....	138
Ridgefield	50,274	.....	7,061
Ridgewood	281,101	.....	11,705½
Riverside	28,765	.....	497½
Rivervale Township	9,861½	601½	.....
Rutherford	267,461½	1,271	.....
Saddle River Borough	10,115	.....	1,668½
Saddle River Township	64,583½	.....	1,804
Teaneck	130,084	.....	9,969½
Tenafly	71,932½	.....	2,721½
*Teterboro .....	.....	.....	.....
*Union Township .....	.....	.....	.....
Upper Saddle River	5,182½	.....	1,349
Wallington	185,646½	.....	14,702
Washington	4,470½	.....	1,373
Westwood	86,227	.....	887
Woodcliff Lakes	14,939	.....	1,310
Wood Ridge	67,170½	.....	6,600½
Total	6,765,911	54,238	295,963

*No attendance.

BURLINGTON COUNTY

Bass River	11,969	2,623	.....
Beverly City	60,461½	.....	5,222
Beverly Township	62,529	.....	6,112
Bordentown City	97,467½	.....	7,622
*Bordentown Township .....	.....	.....	.....

BURLINGTON COUNTY—Continued

TOWNSHIPS	Total Attendance	Loss	Gain
Burlington City	233,774	.....	38,762
Burlington Township	37,367½	.....	7,402½
Chester	219,615	.....	24,874½
Chesterfield	29,009	.....	1,979
Cinnaminson	39,233	.....	77
Delran	40,892½	.....	11,821
Easthampton	8,890½	.....	1,063½
Evesham	39,375½	.....	9,713
Fieldsboro	16,033½	.....	538
Florence	160,434½	.....	20,604
Lumberton	28,117½	.....	1,366
Mansfield	34,194	.....	3,404½
Medford	39,868½	.....	160½
Mount Laurel	40,895½	.....	4,316
New Hanover	21,067½	.....	6,160
Northampton	181,447	.....	12,759
North Hanover	8,326½	1,033½	.....
Palmyra	137,889	.....	10,959
Pemberton Borough	52,108½	.....	9,085½
Pemberton Township	18,737½	.....	2,200
Riverside	133,034½	.....	15,053
Riverton Borough	48,951	.....	3,625½
Shamong	5,898	2,516	.....
Southampton	25,221½	.....	3,424½
Springfield	22,893	.....	1,234
Tabernacle	6,866½	.....	761
Washington	10,640	.....	1,252½
Westhampton	5,118	381½	.....
Willingboro	15,876½	.....	2,322
Woodland	10,020½	1,346½	.....
Total	1,904,223	7,900½	212,813½

*No attendance.

CAMDEN COUNTY

Audubon	115,025	.....	20,949
Barrington	38,856½	.....	7,272
Berlin	56,598½	.....	9,279
Camden City	2,612,772½	.....	185,447½
Centre	71,988½	.....	8,407½
Chesilhurst	5,009	12	.....
Clementon	78,316	.....	1,671½
Collingswood	277,210	.....	28,531
Delaware	40,009½	.....	1,332½
Gloucester City	235,218½	.....	18,731½
Gloucester Township	62,494	.....	696
Haddon Township	56,751½	.....	7,583
Haddonfield	177,647½	14,464½
Haddon Heights	102,307½	12,961½
Laurel Springs	20,972	2,026

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CAMDEN COUNTY—Continued

TOWNSHIPS	Total Attendance	Loss	Gain
Magnolia	35,539	2,800½
Merchantville	65,804	.....	6,371
Oaklyn	25,705	.....	1,471½
Pensauken	168,186½	.....	10,500½
Voorhees	33,496	.....	6,414
Waterford	44,821½	.....	1,925
Winslow	77,073½	.....	1,014½
Woodlynne	37,432	.....	4,846½
Total	4,439,234	2,038	352,670

CAPE MAY COUNTY

Avalon	3,661½	2,062½	.....
Cape May City	77,870½	.....	2,534½
Cape May Point	3,757½	585½	.....
Dennis	40,667½	.....	889
Lower Township	18,836	664	.....
Middle Township	84,192	.....	75
North Wildwood	23,585½	1,903½	.....
Ocean City	77,496½	.....	4,119
Sea Isle City	16,366	1,314	.....
Stone Harbor	3,195	3,072½	.....
*South Cape May .....	.....	.....	.....
Upper Township	33,537	1,668½	.....
West Cape May	26,823½	2,512½	.....
Wildwood City	96,905½	1,055	.....
*Wildwood Crest .....	.....	.....	.....
Woodbine	77,253	.....	1,263½
Total	584,147	14,838	8,881

*No attendance.

CUMBERLAND COUNTY

Bridgeton	426,657	6,842	.....
Commercial	63,622½	.....	704½
Deerfield	86,098½	.....	7,577½
Downe	30,734½	559	.....
Fairfield	33,726	.....	633½
Greenwich	24,651½	41½	.....
Hopewell	58,087½	.....	4½
Landis	538,536	.....	60,999
Lawrence	40,810	4,404½	.....
Maurice River	43,618	2,337½	.....
Millville	437,614½	.....	10,320½
Stow Creek Township	18,546	.....	2,339
Total	1,802,702	14,184½	82,578½

SCHOOL REPORT.

ESSEX COUNTY

TOWNSHIPS	Total Attendance	Loss	Gain
Belleville	540,663	.....	15,444
Bloomfield	638,391½	.....	45,768
Caldwell Borough	144,477½	.....	14,075
Caldwell Township	18,310½	.....	1,880
Cedar Grove	34,557	.....	3,619
East Orange	1,295,257	.....	42,682
Essex Fells	10,405½	.....	706
Glen Ridge	137,866	.....	15,722
Irvington	717,115	.....	32,329½
Livingston	30,675½	.....	3,097
Milburn	122,622½	.....	12,512
Montclair	802,118½	.....	37,706½
Newark	12,138,369	.....	382,869
North Caldwell	6,681	.....	117
Nutley	356,770	.....	20,658
Orange	900,296	.....	24,123½
Roseland	22,443	.....	3,642
South Orange	357,181½	.....	46,927
Verona	81,843½	.....	5,660
West Orange	442,633½	.....	20,200½
Total	18,798,677	.....	729,738

GLOUCESTER COUNTY

Clayton	59,690	.....	5,036½
Depford	34,167½	.....	5,265
East Greenwich Township	35,516	.....	3,426
Elk Township	12,816	.....	874
Franklin	82,992½	.....	2,530½
Glassboro	125,212	.....	5,330½
Greenwich	38,489	.....	10,327½
Harrison	45,687	.....	6,674½
Logan	36,854½	764	.....
Mantua	53,110½	.....	6,999½
Monroe	92,900	.....	10,470
National Park	20,635½	.....	4,168½
Paulsboro	135,542	.....	15,141½
Pitman	77,880½	.....	10,933
South Harrison	12,031	.....	174½
Swedesboro	77,148½	.....	4,910
Washington	29,303	.....	5,916½
Wenonah	25,095½	.....	5,379
West Deptford	29,304	2,696	.....
Westville	60,941½	9,761½	.....
Woodbury	192,981½	.....	7,068½
Woodbury Heights	12,626	.....	2,592
Total	1,290,924	13,221½	113,217½

HUDSON COUNTY

TOWNSHIPS	Total Attendance	Loss	Gain
Bayonne	2,235,784	.....	87,156
East Newark	72,989	.....	3,697
Guttenberg	200,601½	.....	13,139
Harrison	301,551½	.....	16,283½
Hoboken	1,597,891	69,373½	.....
Jersey City	6,977,360½	.....	191,948
Kearny	734,382½	.....	50,506½
North Bergen	720,839	4,812	.....
Secaucus	118,685	.....	5,611½
Town of Union	663,070	11,072	.....
Weehawken	289,915½	827	.....
West Hoboken	1,006,987	746½	.....
West New York	889,521½	.....	48,265½
Total	15,899,578	86,831	416,607

HUNTERDON COUNTY

Alexandria	12,421½	483½	.....
Bethlehem	6,155½	1,078½	.....
Bloomsbury	26,449½	.....	4,497½
Califon	12,019½	.....	12,019½
Clinton, Town of	28,970	2,562½	.....
Clinton Township	35,729½	.....	4,189
Delaware	32,750	.....	4,302½
East Amwell	22,752½	.....	3,708
Flemington	110,298	1,422	.....
Franklin	17,651½	111½	.....
Frenchtown Borough	27,636½	.....	4,479
Hampton	43,078	.....	4,111½
High Bridge Borough	76,121	.....	3,410½
Holland	21,829	.....	1,074
Kingwood	22,418½	.....	4,743
Lambertville City	125,590½	.....	4,911½
Lebanon	43,716½	.....	3,152
Milford	19,464½	.....	2,672½
Raritan	35,554	.....	1,699
Readington	49,240½	.....	1,861
Stockton Borough	16,463½	817½	.....
Tewksbury	18,172	.....	723½
Union	23,504	.....	5,862
Union Graded .....	.....	13,340	.....
West Amwell	5,767	5,177½	.....
Total	833,753	24,993	67,416

MERCER COUNTY

East Windsor	104,456½	.....	3,674½
Ewing	74,273	.....	6,113½

MERCER COUNTY—Continued

TOWNSHIPS	Total Attendance	Loss	Gain
Hamilton	385,937	.....	19,895
Hopewell	169,714	.....	17,920
Lawrence	104,298	.....	10,870
Princeton Borough	131,091	.....	3,187½
Princeton Township	25,316	.....	1,069½
Trenton	2,591,421	.....	18,655½
Washington	24,036½	.....	2,570½
West Windsor	36,638	.....	3,647
Total	3,647,181	.....	87,603

MIDDLESEX COUNTY

Cranbury	47,678½	.....	7,066½
Dunellen	92,140½	.....	5,484½
East Brunswick	64,222	.....	3,012½
Helmetta	30,631	.....	3,939½
Highland Park	109,821½	.....	15,900½
Jamesburg	100,904½	.....	6,600½
Madison	42,787½	.....	97½
Metuchen	108,834½	.....	3,363½
Middlesex	64,604½	.....	9,415
Milltown	80,961½	.....	11,264
Monroe	31,900½	1,119½	.....
New Brunswick	801,543½	.....	47,844
North Brunswick	19,499	1,610	.....
Perth Amboy	1,348,606½	.....	74,236
Piscataway	124,200½	.....	10,378
Raritan	136,160½	.....	8,671½
Roosevelt	288,809	.....	9,667
Sayreville	72,442½	1,322	.....
South Amboy	114,584	11,033½	.....
South Brunswick	80,197½	.....	3,848
South River	173,142½	4,813½	.....
Spotswood	27,178	.....	1,393½
Woodbridge	407,907	.....	42,946½
Total	4,368,757	19,898½	265,128½

MONMOUTH COUNTY

Allenhurst .....	.....	.....	.....
Asbury Park	379,516	.....	13,551
Atlantic	21,974	.....	1,066
Atlantic Highlands	58,848	.....	1,285
Avon	16,764	.....	344
Belmar	51,223	199½	.....
Bradley Beach	51,784½	.....	2,926½
*Deal .....	.....	.....	.....
Eatontown	47,228	1,162	.....

MONMOUTH COUNTY—Continued

TOWNSHIPS	Total Attendance	Less	Gain
Fairhaven	30,451	.....	635
Farmingdale	19,254	.....	262
Freehold Town	166,835	.....	7,695
Freehold Township	32,879½	.....	7,402
Highland	47,414	.....	3,775½
Holmdel	29,267	.....	435½
Howell	55,714½	.....	7,754
Keyport	132,056½	.....	3,222½
Keansburg Borough	41,151½	.....	4,638½
Long Branch	491,537	.....	33,420½
Manalapan	51,978½	.....	1,561
Manasquan	74,883½	.....	6,622½
Marlboro	43,247½	.....	6,074
Matawan	97,643½	.....	1,916½
Middletown	169,545½	.....	15,592
Millstone	34,586	1,121	.....
Monmouth Beach	11,406	.....	1,367
Neptune City	17,381	.....	1,044½
Neptune Township	209,769½	.....	20,614½
Ocean	31,673½	215½	.....
Raritan	38,394	.....	5,094
Red Bank	289,395	.....	29,661
Rumson	52,859	.....	2,841
Sea Bright	25,852½	435½	.....
*Sea Girt Borough .....	.....	.....	.....
Shrewsbury	48,944½	.....	5,162½
Spring Lake	27,416½	.....	5,567
Upper Freehold	58,591½	1,234½	.....
Wall	99,106½	.....	9,578½
West Long Branch	24,443½	.....	3,700
Total	3,081,025	4,368	204,809

*No attendance.

MORRIS COUNTY

Boonton Town	145,349½	.....	12,261½
Boonton Township	10,920½	1,457½	.....
Butler	94,987	.....	4,463
Chatham Borough	73,842	.....	3,106
Chatham Township	22,852½	.....	941½
Chester	29,223½	.....	1,122
Denville	26,134	.....	1,574½
Dover Town	320,974½	419	.....
Florham Park Borough	10,859	1,579½	.....
Hanover Township	137,662½	.....	14,598½
Jefferson	30,441½	.....	650
Madison	134,254	.....	6,497½
Mendham Borough	31,809	736½	.....
Mendham Township	15,203½	1,617	.....
Montville	53,280	2,125½	.....

MORRIS COUNTY—Continued

TOWNSHIPS	Total Attendance	Loss	Gain
Morris	61,812½	.....	3,799½
Morristown	290,679	.....	11,818
Mt. Arlington Borough	8,193½	.....	864
Mt. Olive	27,035	30½	.....
Netcong	77,796½	.....	2,282½
Passaic	53,407½	.....	472
Pequannock	56,763	.....	6,974½
Randolph	66,810	.....	4,938½
Rockaway Borough	104,543½	.....	5,295½
Rockaway Township	98,396	1,118	.....
Roxbury	104,593½	.....	5,763½
Washington	46,833½	953	.....
Wharton	81,804½	.....	8,772
Total	2,216,461	10,036½	95,194½

OCEAN COUNTY

Barnegat City	1,037	.....	417½
Bay Head	7,223	.....	933
Beach Haven	9,721	.....	1,568
*Beechwood .....	.....	.....	.....
Berkeley	10,316	.....	2,241
Brick	48,813	.....	5,151
Dover	78,444½	1,462	.....
Eagleswood	8,067½	2,222½	.....
Harvey Cedars	120½	1,144½	.....
Island Heights	9,080½	.....	840
Jackson	29,604½	.....	1,803
Lacey	11,675	330½	.....
Lakewood	192,827	.....	17,987½
Lavelette	3,836½	631	.....
Little Egg Harbor	9,662	1,149	.....
Long Beach .....	.....	137	.....
Manchester	22,552½	.....	3,407½
*Mantoloking .....	.....	.....	.....
Ocean	7,102½	.....	145
*Ocean Gate .....	.....	.....	.....
Plumstead	25,400½	.....	454½
Point Pleasant	51,366½	.....	871½
Sea Side Heights	2,746	.....	512½
Sea Side Park	5,668	.....	129½
Stafford	20,983½	.....	1,091
Surf City .....	.....	1,448	.....
Tuckerton	41,116½	.....	2,566
Union	23,658	1,305
Total	621,022	9,829½	40,118½

*No attendance.

COMMISSIONER OF EDUCATION.

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PASSAIC COUNTY

TOWNSHIPS	Total Attendance	Loss	Gain
Bloomingtondale	67,832	67,832
Clifton City	842,076½	.....	11,762½
Haledon	89,734	6,654	.....
Hawthorne	128,909½	6,632½	.....
Little Falls	102,503	817	.....
North Haledon	26,203	.....	664½
Passaic	1,862,998	.....	9,681
Paterson	3,664,779	.....	28,628
*Pompton .....	.....	199,529	.....
Pompton Lakes	58,540	.....	8,047
Prospect Park	104,119½	4,130½	.....
Ringwood	37,269	.....	37,269
Totowa	52,312	1,762	.....
Wanaque	116,529½	.....	116,529½
Wayne	63,235	.....	2,152½
West Paterson	54,339½	.....	623½
West Milford	45,526½	.....	2,242½
Total	7,316,906	219,525	285,432

SALEM COUNTY

Alloway	42,687½	.....	3,000½
Elmer	32,324	3,406½	.....
Elsinboro	8,355	.....	1,468½
Lower Alloway Creek	26,777½	490	.....
Lower Penn's Neck	43,712	.....	7,054
Mannington	30,310	.....	1,969½
Oldman's	37,740	1,621	.....
Penn's Grove	165,667	.....	12,793½
Pilesgrove	109,580½	.....	262
Pittsgrove	41,704½	5,899	.....
Quinton	20,700	.....	967½
Salem City	258,053½	.....	23,084
Upper Penn's Neck	192,598	.....	50,341
Upper Pittsgrove	39,813½	4,420	.....
Total	1,050,023	15,836½	100,940½

SOMERSET COUNTY

Bedminster	30,983	.....	1,894½
Bernards	140,914	.....	3,316½
Bound Brook	239,369½	.....	10,313
Branchburg	24,792	.....	396
Bridgewater	156,626	.....	3,381½
East Millstone	11,403	.....	630
Franklin	39,664	.....	448½
Hillsborough	109,672½	.....	24,251
Millstone	2,744½	1,808	.....

SCHOOL REPORT.

SOMERSET COUNTY—Continued

TOWNSHIPS	Total Attendance	Loss	Gain
Montgomery	22,447½	832½	.....
North Plainfield Borough	210,942	.....	24,024
North Plainfield Township	20,478	.....	1,391
Peapack-Gladstone	39,872½	3,009½	.....
Rocky Hill	10,239	3,628½	.....
Somerville	204,542	12,544	.....
South Bound Brook	43,696½	.....	2,527
Warren	27,051	.....	3,609½
Total	1,335,437	21,822½	76,182½

SUSSEX COUNTY

Andover Borough	18,721½	.....	1,432½
Andover Township	5,944	.....	185
Branchville	18,945	2,403½	.....
Byram	4,155½	876	.....
Frankford	16,493½	169	.....
Franklin	114,218½	.....	20,505
Fredon	4,067½	1,090½	.....
Green	9,991	599	.....
Hampton	12,153½	815½	.....
Hardyston	71,399	3,841½	.....
Hopatcong Borough	4,989	.....	674
Lafayette	14,503	.....	1,314½
Montague	10,087½	.....	1,449
Newton	162,253	.....	11,543
Ogdensburg	32,310½	.....	2,234
Sandyston	19,177	.....	417½
Sparta	22,354½	432½	.....
Stanhope	36,389	.....	2,741
Stillwater	17,722	1,071½	.....
Sussex Borough	56,937½	.....	1,184½
Vernon	33,310	.....	357
Wallpack	5,741	.....	887
Wantage	29,277	5,063	.....
Total	721,140	16,362	44,924

UNION COUNTY

Clark	23,877½	.....	8,360½
Cranford	193,018½	.....	21,228½
Elizabeth	2,072,598	.....	78,903
Garwood	72,836	2,713½	.....
Hillside	151,780	.....	27,390
Kenilworth	50,570	.....	2,755
Linden	319,420½	46,428
Mountainside	9,452½	1,772

COMMISSIONER OF EDUCATION.

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UNION COUNTY—Continued

TOWNSHIPS	Total Attendance	Loss	Gain
New Providence Borough	46,321½	4,225
New Providence Township	27,170	.....	2,652½
Plainfield	781,884	.....	76,628
Rahway	317,656	.....	11,959
Roselle	186,981½	.....	14,433½
Roselle Park	200,198½	.....	14,922
Scotch Plains	88,498	.....	17,471½
Springfield	57,002	.....	4,473½
Summit	245,091	.....	2,500
Union	144,099½	.....	11,735
Westfield	292,214	.....	19,063½
Total	5,280,669	2,713½	366,900½

WARREN COUNTY

Allamuchy	12,268	.....	1,540½
Alpha	71,491½	.....	11,874
Belvidere	61,428½	158½	.....
Blairstown	37,214	1,190½	.....
Franklin	28,387½	2,350½	.....
Frelinghuysen	15,820½	.....	1,940
Greenwich	22,855	.....	4,159
Hackettstown	111,772	.....	4,746
Hardwick	5,451	.....	1,005
Harmony	39,863	.....	2,723½
Hope	13,850	235½	.....
Independence	16,683	2,053½	.....
Knowlton	26,479	.....	3,797
Lopatcong	24,505	.....	701
Mansfield	20,746	.....	1,062½
Oxford	63,614½	.....	7,585½
Pahaquarry	1,749½	1,183	.....
Phillipsburg	450,963	.....	12,505
Pohatcong	39,497	.....	1,193
Washington Borough	112,171	.....	400½
Washington Township	17,003½	.....	2,375
White	23,898½	906	.....
Total	1,217,711	8,077½	57,607½

SECTION C

SUPERINTENDENTS

COUNTY SUPERINTENDENTS

<i>Atlantic</i>	.....HENRY M. CRESSMAN.....	Egg Harbor City (Residence)
<i>Bergen</i>	.....B. C. WOOSTER.....	Hackensack (Court House)
<i>Burlington</i>	.....LOUIS J. KASER.....	Mt. Holly (Kelsie & Killie Bldg.)
<i>Camden</i>	.....CHARLES S. ALBERTSON....	Camden (Court House)
<i>Cape May</i>	.....AARON W. HAND.....	Cape May Court House
<i>Cumberland</i>	..J. J. UNGER.....	Bridgeton (Court House)
<i>Essex</i>	.....OLIVER J. MORELOCK.....	Newark (Essex Bldg., Room 316)
<i>Gloucester</i>	....DANIEL T. STEELMAN.....	Woodbury (Court House)
<i>Hudson</i>	.....AUSTIN H. UPDYKE.....	Jersey City (Court House)
<i>Hunterdon</i>	...JASON S. HOFFMAN.....	Flemington (Bloom Building)
<i>Mercer</i>	.....JOSEPH M. ARNOLD.....	Trenton (Court House)
<i>Middlesex</i>	.....H. BREWSTER WILLIS.....	New Brunswick (Co. Office Bldg.)
<i>Monmouth</i>	...CHARLES J. STRAHAN.....	Freehold (Court House)
<i>Morris</i>	.....J. HOWARD HULSART.....	Morristown (Court House)
<i>Ocean</i>	.....CHARLES A. MORRIS.....	Toms River (Hyers Building)
<i>Passaic</i>	.....EDWARD W. GARRISON....	Paterson (Court House)
<i>Salem</i>	.....H. C. DIXON.....	Salem (Court House)
<i>Somerset</i>	....HENRY C. KREBS.....	Somerville (Court House)
<i>Sussex</i>	.....RALPH DECKER.....	Newton (Court House)
<i>Union</i>	.....A. L. JOHNSON.....	Elizabeth (Court House)
<i>Warren</i>	.....HOWARD E. SHIMER.....	Belvidere (Court House)

CITY SUPERINTENDENTS

<i>Asbury Park</i>	....AMOS E. KRAYBILL	<i>Montclair</i>	.....DON C. BLISS
<i>Atlantic City</i>	.....C. B. BOYER	<i>New Brunswick</i>	...IRA T. CHAPMAN
<i>Bayonne</i>	.....P. H. SMITH	<i>Newark</i>	.....DAVID B. CORSON
<i>Bloomfield</i>	.....GEORGE MORRIS	<i>North Bergen</i>	.....M. F. HUSTED
<i>Bordentown</i>	R'B'T. M. OBERHOLZER	<i>Ocean City</i>	....JAMES M. STEVENS
<i>Bridgeton</i>	.....D. C. PORTER	<i>Orange</i>	.....W. B. PATRICK
<i>Camden</i>	.....JAMES E. BRYAN	<i>Passaic</i>	.....FRED S. SHEPHERD
<i>Cape May City</i>	....E. R. BRUNYATE	<i>Paterson</i>	.....J. R. WILSON
<i>Clifton</i>	.....GEORGE A. SMITH	<i>Perth Amboy</i>	.....S. E. SHULL
<i>East Orange</i>	.....E. C. BROOME	<i>Phillipsburg</i>	J. WHITFORD RIDDLE
<i>Elizabeth</i>	..FREDERICK E. EMMONS	<i>Plainfield</i>	.....HENRY M. MAXSON
<i>Englewood</i>	.....WINTON J. WHITE	<i>Pleasantville</i>	..WILLIAM C. SULLIVAN
<i>Gloucester City</i>	..WILMER F. BURNS	<i>Rahway</i>	.....WILLIAM F. LITTLE
<i>Hoboken</i>	.....A. J. DEMAREST	<i>Salem</i>	.....WALTER B. DAVIS
<i>Irvington</i>	.....R. LEE SAUNDERS	<i>South Amboy</i>	.....OSCAR O. BARR
<i>Jersey City</i>	.....HENRY SNYDER	<i>Summit</i>	.....HARRY SPRAGUE
<i>Kearny</i>	.....HERMAN DRESSEL	<i>Town of Union</i>	..LUTHER N. STEELE
<i>Long Branch</i>	.....CHRIS. GREGORY	<i>Trenton</i>	.....ZENOS E. SCOTT
<i>Millville</i>	....FREDERICK J. SICKLES	<i>West Hoboken</i>	..ARTHUR O. SMITH

PART IV

**REPORTS OF
EDUCATIONAL INSTITUTIONS AND
TEACHERS' RETIREMENT FUND**

FOR THE YEAR ENDING JUNE 30, 1919

STATE NORMAL SCHOOL AT TRENTON

J. J. SAVITZ, *Principal*

I take pleasure in submitting the annual report of the New Jersey State Normal School at Trenton:

THE COURSES FOR THE TRAINING OF SPECIAL TEACHERS

During the year two new courses of study were introduced for the preparation of teachers and supervisors of special subjects.

COURSE FOR TEACHERS OF THE DEAF

In cooperation with the School for the Deaf, an institution under the supervision and control of the State Board of Education, a course is offered for the training of teachers for the deaf. The academic and professional subjects are taught by the members of the Normal School Faculty and the special subjects are given by Mrs. Carlotta A. Anderson, supervisor of the School for the Deaf, or under her supervision. Unusual opportunities for observation and practice under competent supervision are provided by the School for the Deaf. This course eventually will provide properly trained teachers for all deaf pupils in the state.

COURSE IN MUSIC

A three year course for the training of teachers and supervisors of music has also been introduced. A limited number of students, whose interest in the subject and capacity for mastering the problems which confront supervisors of music are sufficient to meet the demands of the state for special teachers and supervisors of this subject, will be admitted to the course. Twelve students are now enrolled. The schools and institutions of Trenton and vicinity offer exceptional opportunity for practice teaching and experience in conducting assembly and chorus singing. Miss Mabel E. Bray, formerly principal of a school for supervisors, with an extended experience in teaching and supervising this subject in public and normal schools in different sections of the country, has charge of the work. This course not only affords young women with natural capacity an opportunity for adequate training to teach this subject, but also greatly stimulates the general course students, who will be required to teach music in the grades, to greater effort and increases their interest in and appreciation of this most important subject.

COMMERCIAL COURSE

The special course for teachers of commercial subjects has been extended to three years on the advice and approval of the Federal Board of Voca-

tional Education. Arrangements have been made for observation and practice in the junior and senior high schools of Trenton.

To guard against preparing teachers of commercial subjects with a theoretical knowledge of business merely, no students are admitted to the course without some business experience or business training in secondary schools. In addition, before being granted a diploma, each student must spend at least ten weeks in the employ of a commercial or industrial establishment. Students also receive training and practice of a varied nature in the offices of the principal and the steward of the school.

COURSE FOR THE TEACHERS OF SUBNORMAL CLASSES

The requests for teachers of subnormal classes have been so insistent that we cannot half supply the demand. Only young women of special fitness are allowed to take up the work, and even then specialization does not begin until the senior year. The head of the department makes the psychological examinations in the Child Hygiene Station in Trenton, conducted by Dr. J. G. McDonald of the State Board of Health. Our students are required to attend the clinic and thus to gain practical experience in giving the tests, observing the physical examinations made, assisting in getting a personal history of the child and aiding the social service workers by following up the treatment recommended.

TRAINING OF RURAL TEACHERS

Twenty young women elected to prepare themselves to teach in rural schools. Their work in observation and preliminary practice was directed to this end and for their responsible practice teaching each student was assigned for ten weeks to one of the typical rural schools in various sections of the state. The critics to whom they were assigned entered heartily into the spirit and aims of this course by providing various opportunities and by encouraging them in their efforts to relate the work of the home and the school.

Instead of returning to the Normal School after their state practice teaching was completed, they spent the remaining ten weeks on the farm at Leonardo, which Honorable M. A. Rice, President of the State Board of Education, generously placed at the disposal of the school to give this training a practical trend. This farm was ideally adapted for work of this nature. The commodious farm house, supplied with conveniences, including much to be desired showers, is situated upon a rise of ground overlooking the bay. President Rice also supplied part of the furniture and a registered cow of the finest type which supplied milk and cream for twenty girls besides an income from the sale of surplus milk. The women of the Rumson Garden Club provided furniture for the house including a piano, all the necessary farm utensils, fertilizers, gas engine, etc. On account of its soil being especially adapted to trucking, with apple and peach orchards, large asparagus bed, raspberry and blackberry patches, and grape arbors of the choicest varieties, it was unexcelled for work of this nature.

The young women took entire charge of the farm, plowing, planting, cul-

tivating and harvesting the crops. The morning was devoted to farm work and the afternoon and evening to study, recitation, and recreation. There was opportunity for all phases of nature study in sprouting seeds and caring for growing plants, as well as in the teeming bird life and varied flora of the region.

The use of the gas engine, the water supply, including force pump, water towers, etc., kitchen equipment, farm implements and machinery made necessary the practical application of scientific principles. Under the guidance of a student in the special domestic science and art course, the students were given practical lessons not only in cooking, through the preparation of meals, but also in the care of the house.

The schools of the district, organized and conducted on modern lines, with due emphasis on agriculture, domestic science and art, and other subjects of a practical nature, including a well equipped playground, furnished concrete examples of the activities and management of an up-to-date school. County Superintendent Strahan, Supervising Principal Sanford of the local schools, Superintendent Radcliffe of Red Bank, Mr. Allen, teacher of agriculture in the local schools, and Miss Wilson, the helping teacher, contributed much to a successful outcome of the project.

The Farm-School was in charge of Miss Sheppard of the biology department, assisted by Miss Lafetra. Other members of the faculty spent brief periods at the school to give instruction in prescribed work and to direct students in carrying on independent work.

The young women raised and sold farm produce valued at approximately \$700, not including the vegetables supplied for the table. Since the purpose was professional growth rather than financial gain, the chief value of the experiment was twenty young women fully equipped to teach in rural schools a well organized course of study growing out of their experiences. Not the least advantage is the changed attitude of all our students toward the work of the rural teacher by the favorable notice given to this experiment by the educators of the state.

In addition to making the experiment possible by giving us the use of the farm and providing us with the necessary farm and household equipment, Mr. Rice and the women of the Rumson Garden Club contributed much to the success of the enterprise through friendly counsel and advice and a sympathetic interest.

SUPERVISION OF THE EWING TOWNSHIP SCHOOLS

The faculty cooperated heartily in supervising the Ewing Township schools under the direction of Mr. Secor, head of the department of school management. The responsibility for the instruction in each building was placed upon one member of the faculty committee in charge of the schools. The heads of departments rendered valuable assistance in correlating the work and in improving methods of instruction. The Principal of the Normal School outlined the plan of supervision and control at a joint meeting of the board and teachers before the opening of the schools in September, visited the schools, and conducted teachers' meetings during the year. So satisfactory were the results that the Board of Education unanimously voted to continue the arrangement for another year.

EXTENSION WORK

Extension courses were conducted for the teachers of Trenton and adjoining districts by the Principal of the school in Principles of Teaching and by Miss Charlotte Herckner in Industrial Arts, on Monday afternoons after school hours. Approximately 150 teachers availed themselves of this opportunity for professional improvement. During the year many of the former graduates and other teachers in the state responded to the invitation of the faculty to consult them concerning the various phases of their own teaching problems. During the coming year this work will be extended by giving courses at various centers of the state convenient to teachers.

The psychology department conducted tests in reading in Hamilton township and in arithmetic in Ewing township. A course in Educational Measurements will be offered to principals and leading teachers of the county during the coming year by this department.

The faculty of the Normal School is ready to offer courses in almost any subject at centers easily accessible to teachers and is prepared to give advice and assistance to principals and teachers to aid them in the solution of problems connected with their school work.

FOLLOW UP WORK

The follow up work carried on last year has proved so successful that during the coming year one member of the faculty will devote the greater part of her time to this important work. Practically all the graduates of the February and June classes of 1917 who accepted positions in school districts not employing a supervising principal or helping teacher were visited once and frequently twice when such visits were considered helpful to those teachers.

Discriminating written reports were made to the principal and heads of departments especially concerned with the work of such teachers. After a conference at which the attainments and limitations of these teachers were duly considered, the visiting faculty member made a second visit or the Principal delegated some other faculty member best fitted to give the necessary help.

It would seem that an additional investment of ten or fifteen dollars to help a teacher for whom the state had expended three or four hundred dollars for training, to adjust herself to her work more readily, would bring an adequate return in boys and girls properly equipped for the work of life. The visiting faculty member made many visits of an incidental nature to former graduates of the school and by helpful counsel stimulated them to renewed effort. No phase of our work promises more for better and more intelligent teaching.

THE CAMP AT SOMERSET

To stimulate interest in recreation and outdoor life, groups of twenty-five or thirty girls spent their weekends in the spring and fall in camp at Somerset on the Delaware. So altogether profitable and satisfactory did these camping parties prove that an association of alumni, faculty and students

purchased a plot of ground for a camp at Somerset and the special manual training students, under the instruction of Professor Burt and with the guidance of the custodian of buildings and school carpenter, erected a bungalow on the property.

The bungalow, which faces Paradise Park and the beautiful Jacob's Creek, is located on high ground about 100 feet above the bed of the creek. It commands a view of the Delaware River with the hills of Pennsylvania in the background. The main part of the bungalow consists of a living room 18 by 24 feet, with a kitchen and storeroom attachment 9 by 15 feet. Across the entire front of the building is a porch 8 feet wide. Provision has been made for a large fireplace in the living room, which will be built during the coming summer.

The plot of ground is sufficiently large for a school garden, which will supply the camp with fresh vegetables during the summer and fall. A number of fine large apple trees on the property add to its attractiveness and usefulness. Between the bungalow and the Jacob's Creek Road is a screen of trees and shrubbery which protects the bungalow from the view of the curious passerby and privacy and seclusion are thus assured.

For week-end parties of students the camp provides opportunities for wading, bathing, boating, skating, and a base for hiking in the river valley and upland woods. These parties extend the facilities provided in the school for physical training and healthful recreation and instill a love for outdoor life which is a valuable asset to any teacher.

The camp also furnishes opportunity for groups of graduates who wish to spend a vacation together renewing acquaintances under ideal conditions at an expense not exceeding \$5 a week. Four or five groups of graduates and students availed themselves during the past summer of the privileges which the camp affords.

UNITED WAR WORK FUND

As a result of the spirit aroused by the self-sacrificing service of the preceding year in helping to relieve the distress caused by the war, our students responded nobly to the call for funds in the United War Work drive. Through exercise of self denial and service of the most menial type, our students experienced much satisfaction in contributing \$3493.36 to this fund.

IMPROVEMENTS

During the year the Normal School shower rooms in connection with the gymnasiums were entirely rebuilt. The antiquated and worn out showers were replaced by eight modern showers, four on each floor, with marble partitions, and sixteen dressing rooms were built in such close proximity to the showers that an entire group of students can take a shower bath after a physical training exercise in a comparatively short time. A new lavatory with modern fixtures has been built on each floor, and the unsanitary composition floors have given way to a tile floor. The locker rooms have been rebuilt, new ventilating apparatus installed, and a sufficient number of new sanitary steel lockers purchased so that there are ample locker facilities for

each student. Two new fifty gallon boilers with adequate heating facilities have been purchased, thus assuring the necessary supply of water at proper temperature.

The walls of both gymnasiums, including the physical lecture room and the approaches to the gymnasium, have been redecorated. The floor of the gymnasium will be put in proper condition at once. When all these improvements are completed we will have gymnasiums equalled by no school in the state.

New maple floors were laid in three classrooms and in the office of the psychology department. The floors in the large study room, in the sewing rooms, the music rooms, two classrooms, and the office of the geography department have been scraped and properly finished.

The walls of the corridors in the Normal School building, in the psychology classrooms, and the geography classroom, have been redecorated.

The walls of the entire new wing, with the exception of the manual training rooms, have been pointed up and decorated. Since no money had been expended on this building since its erection five years ago, this improvement adds much to its appearance and is greatly appreciated by the students.

An office for the use of the supervisor of practice and her assistants has been built in the east end of the large study room on the second floor of the Normal building. This office is reached from the corridor through a waiting room which connects them. This makes a convenient arrangement for superintendents to interview our students, and, as the office is connected with the main study room by a door, the supervisor may readily arrange for interviews without interfering with her work.

The special classroom has been renovated and furniture suitable for this type of work has been installed. One hundred and thirty desks of the most approved type have been purchased for use by the Normal students. Six book stacks have been placed in the library to properly care for the new books and to make them accessible to students.

BOARDING HALLS

The floors of our large dining room have been scraped and finished, greatly improving the appearance of the room. All the floors in the corridors in Center and South Halls and the connecting corridors have been scraped and refinished. The walls of the second floor corridor in the Center Hall have been painted to conform with the other corridors, and all the woodwork in the building has been given two coats of white paint.

Fifty-five rooms in Center and South Halls have been repapered; all the furniture in these buildings has been renovated. To improve the light and ventilation a large window has been placed in the south wall of the nursery.

CHANGES IN THE FACULTY

Professor Frank H. Scobey, who has been employed as a teacher of mathematics in the Normal and Model schools for the last thirty-five years, retired at the end of the school year to enjoy a well merited rest. Mr. Scobey's loyalty to the school, his untiring zeal to promote the interest of his students, his genial disposition, and his beautiful character have endeared him to

all who came under his influence. He will be greatly missed by his associates on the faculty.

Mr. Wandell B. Secor, formerly teacher of mathematics in the Model School and lately head of the department of school management, succeeds Mr. Scobey.

Miss Susan A. Reilly, whose entire teaching service of thirty-seven years was devoted to the Normal and Model schools, also retired at the end of the year. For many years she was head of the geography department, in which position she rendered a distinguished service in modernizing the work. Her enthusiasm and interest always inspired her students to greater effort, and many of them carried her spirit and methods into their own classrooms. Her former students will learn with regret that she has severed her relations with the school.

Miss Cleo R. Chappell, a graduate of Teachers College, succeeds Miss Reilly. Miss Chappell has been county superintendent of schools and principal of junior and senior high schools in Nebraska. She taught geography in the summer school conducted by the Buffalo State Normal School in 1919.

Dr. H. B. Boice, at the head of the physical training department for the last twenty-seven years, has been made physical examiner and medical inspector in the Training School.

Mr. Holger C. Langmack, a graduate of the University of Copenhagen and of Teachers College, Denmark, succeeds Dr. Boice as head of the physical training department. He has served in the army as a lieutenant, had charge of junior high school work in Minnesota, and comes to the Normal from the Moorehead, Minnesota, Normal School, where he held a similar position.

Mr. F. Eugene Seymour, who was assistant instructor in mathematics in the Normal and Model schools for a number of years, resigned to accept the position of inspector of secondary education in New York State.

Miss Harriet Alden, an assistant in the psychology department for the last twenty-one years, has been granted a year's leave of absence at her own request.

Miss Anna O. Bromley takes the position held by Miss Alden and assists in training the teachers for subnormal children. She is a graduate of Teachers College and was head of the psychology department at Drexel Institute for three years.

Miss Elsie Bartlett, an assistant in the psychology department and in charge of the course for the training of teachers for subnormal children, resigned to become the wife of Dr. Carl Sneed.

Mr. Glentworth M. Willson succeeds Miss Bartlett as instructor in psychology and supervisor of training for teachers of subnormal children. He is a graduate of Alfred University and Teachers College, Columbia University. He has been head of psychology department in Alfred University and resigned the position of director of extension and rural work in the Normal School at Lewiston, Idaho, to accept a position here.

Miss Countess Mitchum, an assistant in the biology department, resigned. She expects to be married during the coming winter.

Miss Hannah M. Sweeton, who takes the place of Miss Mitchum, is a graduate of the Philadelphia Normal School, with teaching experience in the

public schools and a year of study at Johns Hopkins School for Nurses. She completed a course in school gardens at Ambler, Pennsylvania, and at the time of her appointment at the Normal was assistant in the Brooklyn Botanical Gardens.

Miss Bernice Reaney has resigned as head of the domestic science department to pursue graduate study in Peabody Institute, Nashville, Tennessee.

Miss Laretta P. James was appointed to succeed Miss Reaney. Miss James completed a two years' course at Wellesley College and later was graduated from the domestic science course of Teachers College, Columbia University. She has taught in the public schools, served as teacher clerk at the Westtown School, and for the last three years was county demonstrator and organizer of boys and girls clubs in Mercer County, New Jersey.

Miss Mary Reed, primary critic in the Training School, resigned to accept the principalship of the Training School connected with the Normal School at Fredericksburg, Virginia.

Miss Margaret E. Wells, a critic in the Training School was granted a year's leave of absence to complete her work for the doctor's degree in Teachers College, Columbia University.

Miss Margaret C. Wise has accepted the position made vacant by Miss Wells' absence. She is a graduate of Trenton Normal, and of Teachers College, Columbia University. She was a critic in the Elizabeth Training School and had charge, immediately prior to her coming to the Normal, of the open air class at the Horace Mann School.

Miss Ruby Minor, sixth grade critic in the Training School, left to accept a similar position in the Normal School at Leavenworth, Kansas.

Miss Edith M. Hagan, a graduate of Syracuse University with four years' experience as critic in the Brockport State Normal School, was appointed to succeed Miss Minor.

Mrs. Agnes Hummer Thomas, a fifth grade critic for a number of years, resigned to join her husband, who returned from service overseas.

Miss Ruth M. Griffith has accepted a position as second grade critic in the Training School. She is a graduate of the Fredonia Normal School and has had seven years of successful teaching experience in public schools. She resigned a position in Yonkers, New York, public schools to accept this position.

Miss Emma J. Lafetra, assistant in the music department, was granted a year's leave of absence to study at Teachers College, Columbia University.

Miss Abbie L. Harvey takes a part of the work in music. She is a graduate of the American Conservatory of Music at Chicago, and has studied at the Institute of Music Pedagogy at Northampton, Massachusetts. Miss Harvey has had several years experience as a supervisor of music in Illinois, Maine and Massachusetts.

Miss Mabel Sturgis, who comes as an assistant in the department of music, is a graduate of Wellesley, has studied and taught at Miss Bray's School for Supervisors of Music at Westfield, New Jersey, and was for three years supervisor of music in the public schools in Rutherford, New Jersey. In addition to this, she has had successful experience as a lecturer-singer under the New York City Board of Education.

LECTURES

In addition to the usual lectures and entertainments, five lectures pertaining to the problems of reconstruction were given by specialists before the faculty and students, as follows:

Dr. Frank McMurray, Department of Elementary Education, Teachers College, on *The Teacher's Part in the Education of Children*; Professor Harvey E. Robinson, Department of History, Teachers College, on *Freedom of Speech or Hindrances to Educational Progress*; President Arthur C. McGiffert, Union Theological Seminary, on *Religious Problems of Reconstruction*; Dr. Franklin Henry Giddings, Columbia University, on *What is our Democracy to Mean?*; Dr. George D. Strayer, President of the National Education Association, on *The National Emergency in Education*.

Following is a list of lectures and entertainers who appeared before our students.

Mr. T. Gilbert Pearson, National Secretary of the Audubon Society, *The Work of the Audubon Society*; Ernest Thompson Seton, *Woodcraft in Town*; Reverend Burleigh Cruikshank and Rev. Roy B. Chamberlain, *The United War Work Fund*; Dr. Frederick W. Maroney, Instructor and Director of Physical Training and Hygiene in the New Jersey State Department of Education, *Demonstration Lessons in Physical Education*; Mr. French, a Y. M. C. A. Secretary from Camp Dix, for the U. W. W.; Major R. B. Arbuthnot of the Scots Guards, the U. W. W.; Mr. H. A. Berry, *Palmer Method of Penmanship*; Miss Patty S. Hill, Teachers College, *Education in Freedom for Freedom*; Professor William Starr Myers, Princeton University, *The Education of Abraham Lincoln*; Miss Effie G. Kuhn of the faculty, a reading of Kipling's *The Light that Failed*; Miss Ethel Coburn Noyes, Principal of the Noyes School of Expression, Boston, a reading of Dickens' *Bleak House*; Miss Loretta Terradell, *My Experience in France in the Service of the Red Cross*; Dr. Charles G. Fenwick, Department of Economics and Politics, Bryn Mawr, *A League of Nations*; Miss Louise Holbrook, of the Dairying Division of the Department of Agriculture, *Milk Educational Campaign*; and Dr. Julius Levy, Division of Child Hygiene of the State Board of Health and Miss Annette M. Beal, *Good Health Week*.

LITERARY SOCIETIES

The nine literary societies engaged in the usual activities during the year. Several societies held reunions, which were attended by a goodly number of graduate members. Representatives from the Normal Dramatic and the Arguomuthos Societies, after winning the preliminary contests, competed in a literary contest consisting of declamation, essay, short story, and debate. Normal Dramatic scored thirteen points and Arguomuthos fourteen, the latter thus winning the contest by one point.

Three young women representing the Contest Association took part in the annual debate with representatives of the freshman class from Swarthmore College. The subject for the debate was, *Resolved, That the federal government shall continue to control and operate the railroads for a period of at least five years*. The Normal School representatives won the debate accord-

ing to the unanimous decision of the judges.

Increased activity in literary society work is anticipated for the coming year on account of a plan to increase the membership of the societies so that practically all the students will become members; by giving school credit for literary effort, and also by allowing each society to choose a room to be known by its name, and in which the regular meetings will be held.

THE SIGNAL

For the purpose of increasing interest in the school paper by improving the quality of the contents, a faculty committee has been appointed to assist the board of managers chosen by the students. The paper in the future will contain articles descriptive of the life and activities of the school which we hope will be appreciated by graduates and former students of the school.

COMMENCEMENTS

Informal commencement exercises of the February class of 1919 were held on January 27, at which thirty-two young women received their diplomas. Honorable M. A. Rice, President of the State Board of Education, presented the diplomas.

The Commencement exercises of the June, 1919, graduating class were held in the auditorium Thursday morning, June 26, at 10.30 o'clock. Two hundred and twenty-five students were graduated, distributed as follows: General Course 154, Kindergarten-Primary 46, Commercial 2, Domestic Science and Arts 19, Manual Training 2, and Course for Teachers of Subnormal Children 16.

The Commencement address was delivered by Honorable John Enright, Assistant Commissioner of Education. Honorable M. A. Rice, President of the State Board of Education, presented the diplomas.

ALUMNI REUNION

The two alumni reunions held during the year were well attended by interested and enthusiastic graduates.

The North Jersey Alumni Association decided to omit the reunions during the war and therefore no meetings were held in 1917 and 1918. In response to numerous requests that the meetings be resumed, the officers arranged for a reunion at the Hotel McAlpin, New York City, on May 3. At this well attended gathering an interesting program was rendered and the following officers were elected for the coming year:

President, Mrs. C. O. Blaisdell, 1091 Bushwick Avenue, Brooklyn, N. Y.

Vice-president, Miss Kate D. Stout, State Normal School, Trenton.

The General Alumni Association held its meeting on Friday and Saturday, June 13 and 14. A feature of the reunion was the reception and entertainment on Friday evening by the faculty and students to the visiting alumni. An interesting informal program rendered by the faculty aroused such enthusiasm that the students, alumni, and faculty enjoyed an evening of hearty fellowship. About seventy-five graduates were present, half of whom were men.

On Saturday morning, prior to the alumni banquet, the graduates enjoyed an automobile trip to Somerset to inspect the bungalow erected by the Camping Association. At the annual banquet at 12 o'clock the usual business meeting was held, and interesting and inspiring addresses were made by representatives of the graduating class and the alumni.

The following officers were elected for the ensuing year:

President, Harold H. Phillips, Normal, Newark.

Model Vice-president, Dr. Horace D. Bellis, Trenton.

Normal Vice-president, Katherine Hirst, Camden.

Corresponding Secretary, Helen W. West, Normal, State Normal School, Trenton.

Recording Secretary, Mrs. Albert T. Stretch, Normal and Model, 207 Academy St., Trenton.

Treasurer, Mollie C. Pierrepont, Normal, R. F. D. 3, Trenton.

STATE NORMAL SCHOOL AT MONTCLAIR

CHARLES S. CHAPIN, *Principal*

STATISTICS

The membership of the New Jersey State Normal School at Montclair for the fall term beginning September 3, 1918, was 481. In February, 1919, a class of 24 was admitted, making the total number of different pupils registered during the school year 505.

A class of 87 teachers was graduated in January and 124 in June, 1919, a total of 211, of whom five are members of the physical training and hygiene course. With three exceptions, this is a larger number than the school has graduated in any one year during the eleven years of its history.

The net number of registrants for entrance in September, 1919, is 155, which is but 13 fewer than the class which entered in September, 1918. As two months remain before the opening of the fall term, and as new applications are being received almost daily, it is fairly safe to predict that the class to enter September, 1919, will probably exceed that which entered one year ago. In this connection it is interesting to note the numbers admitted in September and the total September membership of the school since its opening September 15, 1908:

	September admissions	September membership
1908.....	187	187
1909.....	164	350
1910.....	157	427
1911.....	148	405
1912.....	182	477
1913.....	150	483
1914.....	199	545
1915.....	209	531
1916.....	276	658
1917.....	208	600
1918.....	168	481

Our membership increased steadily from 1908 to 1916, when it reached high water mark at 658. The falling off began in 1917, when the entering class registered 68 fewer than in the previous September, while the entire school fell off 58, showing that the loss was entirely due to the smaller number of entrants, while the upper classes show no loss in numbers. The figures for September, 1918, however, tell another story. The entering class was smaller than that of September, 1917, by only 40, while the total September membership fell from 600 in 1917 to 481 in 1918, a loss of 119, of which 79 must have been in the upper classes, an annual loss due undoubtedly to withdrawals to engage in war work and in business employments for which the war furnished unusual opportunities. Considering the great call for young women in business positions, an enrollment of 155 two months before the opening of the fall term is most encouraging.

PROSPECTS FOR FUTURE ATTENDANCE

The scarcity of teachers has resulted in the employment of all of the 212 graduates of 1919 classes, with the exception of a very few who will con-

tinue their preparation for teaching in college or special training schools; or, on account of home conditions, are waiting to secure schools within commuting distance of their homes. Every graduate has received from one to twenty opportunities to teach next September at salaries ranging from \$700 to \$900. A very large number will begin work at \$800, \$850, and \$900. Two years ago many graduates accepted contracts at \$600. The increased financial rewards of teaching, which are likely to be still larger, will inevitably attract more young men and women to the state normal schools, provided the facts can be placed before the students of our high schools promptly and attractively. For the good of the elementary schools, advertisement of the advantages of the teacher's life and propaganda to induce young men and women to train themselves for teaching should be begun and continued energetically by all the educational organizations of the state.

The high schools bend all energies to the preparation of pupils for college and increase their efforts and facilities to meet the increased demands of colleges which are maintained on private, often sectarian, foundations, and most of which are located outside of New Jersey. Is it not equally possible for the high schools, as a part of the public school system of New Jersey, to recognize their duty to assist the elementary schools of the state by sending to the state normal schools more high school graduates so that the common schools of this state may have an ample supply of carefully selected and well trained teachers? With proper and patriotic cooperation by all our educational agencies, the New Jersey normal schools will recover their pre-war numbers and the ideal of a trained teacher for every school in the state can be attained in a few years.

NEED OF A NEW DORMITORY

This school needs another dormitory. Russ Hall, the gift of the late Edward Russ, of Hoboken, has been maintained most successfully for four years and is self-supporting; but it accommodates but 97 students. The waiting list for rooms is always above 100. Of the applicants for next September, 70 could not obtain rooms at Russ Hall and by September this number will be more than 100. Applications for rooms are booked as far ahead as 1922. Though Montclair homes are in considerable numbers receiving student boarders, most of these 100 will not come unless they can have rooms in the dormitory; and, judging by past experience, they will not go to other training schools for teachers. New Jersey loses probably 100 teachers each year because of our lack of dormitory facilities. Most mothers want their young daughters to receive the protection, medical care, and supervision of a well-managed school dormitory. No more healthful or secluded or beautiful location for dormitory life can be found than on the elevated and ample grounds at Montclair. This school will fall short of its possibilities for increasing the supply of trained teachers for the state until it can guarantee boarding facilities for more young women.

I urge the State Board of Education to request the Legislature of 1920 to make a special appropriation to build and equip a second dormitory to accommodate at least 100 students.

SCHOOL REPORT.

COURSE IN PHYSICAL TRAINING AND HYGIENE

On June 20, 1919, the first class in our course for training teachers of physical training and hygiene under the terms of the so-called Pierson Act was graduated. The course is open only to normal school graduates, but this arrangement is more experimental than final. One year of observation raises the inquiry whether the course for normal school graduates should not be lengthened, and whether another course of three years, open to selected graduates of approved high schools and secondary schools, should not be offered. The class to enter in September, 1919, will, of course, be graduated according to present arrangements; but I shall in the near future lay a new proposition before the State Board of Education in full detail for its consideration.

INCREASED PRACTICE FACILITIES

To afford more opportunity to our students for observation and practice, a kindergarten of 25 children will be opened in the fall in the rooms now occupied by the kindergarten training department. No expense except for equipment is involved, as the kindergarten director and her assistant, with the help of students, will form the teaching staff. So many applications from parents have been received that it has been necessary to establish a waiting list. It is hoped that eventually we may have what the original plans for this school contemplated—an observation or training school of eight grades above the kindergarten on our own premises.

CHANGES IN THE FACULTY

Miss Lillian T. Bull, assistant in the physical training department, resigned in the middle of the year to accept the supervisorship of physical training in the schools of Middletown, New York. Miss Gertrude D. King, of the same department, resigned June 30, 1919, to accept a position with the Y. W. C. A. in New York City.

Miss Emma K. Pierce, head of the same department, who has been engaged in war work in France for nearly two years on leave of absence without salary, is to resume her work here next September.

Mrs. Jessie B. Bodley, assistant in the manual training department, retired at the close of the school year to engage in another occupation.

FINANCIAL

It is customary to close such reports with a financial statement, but the change of the last day of the fiscal year from October 31 to June 30 makes such a report impossible at this writing, inasmuch as June bills will not be paid for several weeks and, under the present practice, we cannot know exactly the total of our bills until all have been rendered to us and audited by the Comptroller's office. Such financial statement, therefore, will be submitted to your Board later.

STATE NORMAL SCHOOL AT NEWARK

W. SPADER WILLIS, *Principal*

The State Normal School at Newark entered upon its seventh year of existence September 2, 1919, with an entering class numbering 280, an increased enrollment of 45 over the previous September entering class. The present total enrollment of 661 is below former registrations.

Members of the faculty and student body reported for duty on the opening day, and regular school sessions were held within one hour after the morning exercises. The lengthened school day, permitting students commuting from long distances to arrange programs based upon railroad schedules, has solved a difficult problem in administration. Sessions commence at 8.50 a. m. and close at 3.45 p. m., with a forty-five minute luncheon period. Lunches of a nourishing character are furnished at minimum cost. Forty thousand meals were served during the past year.

TEACHER PROBLEM

Attendance at normal schools throughout the country has decreased 30 per cent. since 1916. The normal schools of this state could accommodate twice as many as now attend. This country-wide shortage of teachers is of the gravest concern; experienced teachers are continuing to leave the profession on account of the lack of adequate compensation, and are advising high school graduates to take up industrial and commercial pursuits. It will be impossible to attract high school students until normal school graduates receive higher salaries. There is an awakening on the part of the public and boards of education; many communities realize the seriousness of the situation. During the past year many of our own graduates were placed in positions paying \$100 a month, and many others received \$90, \$85 and \$80 a month. Salaries in many instances have been increased. Thirty of our June graduates are teaching rural schools. A minimum salary of \$1000 for beginning normal school graduates will greatly increase normal school attendance. Our school has suffered less than others when it comes to attendance, but it is still below former enrollments. During the year 1916-17 the enrollment was 840; in the year 1918-19 the enrollment fell to 704, a loss of 136 students. Special efforts have been made by the principal to reach high school pupils in order to interest them in normal school work. He has also sent normal school students to discuss the question with high school senior classes. A feeling of prejudice exists among young people against teaching. United action is necessary to counteract the commercial allurements of the business world. The best argument will be adequate salaries.

GRADUATES

Two thousand graduates are filling responsible positions in various parts of the state. Carefully compiled reports indicate that they are teaching with approval and success. Quite a large percentage of our graduates are

teaching in grammar grade positions, and there is a constantly increasing demand for teachers of this type. It is only fitting that a word of appreciation should be extended to superintendents, supervising principals and helping teachers for the confidence, encouragement and assistance given our graduates. These twenty year old, inexperienced teachers have much to learn, many adjustments to make and numerous faults to correct. They need kindly suggestions, helpful criticisms and a word of cheer until they find themselves. Beginning experiences require a friendly voice and hand; such have been given our graduates by the supervisory force of the state as well as by noble-minded teachers who recall their own early struggles. These human relationships make for gratitude, enrichment and success.

TRAINING FACILITIES

The Webster Training School affords students extensive training facilities during their first ten weeks of practice work under the direction of an expert corps of critic teachers especially selected for the purpose. A supervisor of practice from the Normal School visits this practice center every day to observe the work of the students, confer with critic teachers and hold round-table conferences attended by critic teachers and students. At this school daily programs, courses of study, methods to be employed, the selection of subject matter, arrangement of material and how best to meet the needs and capacities of children in the primary grades receive marked attention. Practice students work under regular classroom conditions; the value of this intensive work under the supervision of experienced teachers cannot be over-estimated. A school of this character unifies both theory and practice departments.

During the past year 400 students have been assigned for practice teaching throughout the state. Four supervisors of practice follow up the work and report upon the success or failure of students. They also hold conferences with principal, training teachers and students at frequent intervals. These conferences are of a professional character concerned with maintaining definite standards throughout the state. The four supervisors connected with the practice department have made during the past year 1264 visits to training teachers and students. The aim of the practice department is to impress the fact that teaching is interesting or monotonous as teachers themselves make it. All monotony has its roots not in conditions, but in ourselves. Teaching must be an awakening process vitalized by joyousness, growth and power. It should also be permeated by those invisible moral results which exert such transforming influences upon the hearts and minds of children. It is impossible to estimate in dollars the services rendered by a cultured teacher possessing a wide vision of the possibilities and realities to be found in the fresh, instinctive nature of childhood. The work of such a teacher remains an imperishable element in human society. All departments of our institution hold up teaching as an ideal service which becomes commonplace only to those whose natures, tastes and aspirations are commonplace.

LIBRARY EQUIPMENT

Six hundred students make daily use of the library. All students who enter the institution are given a course in the care of books, the use of ref-

erence books, and the selection of material suitable for teaching. The system of classification used in the library is the same method used in other libraries. Students are enabled to use in an intelligent way any library throughout the country. There are 6000 carefully selected textbooks, 13,000 reference books covering widely diversified subjects, 60 carefully selected magazines and 600 pamphlets. Two thousand unmounted pictures are loaned to students for the teaching of geography and history, and 600 mounted pictures and posters are kept for permanent use in various classrooms. A book-binding course given each student inculcates the protection and care of books. But six books were lost by students last year. Many visitors to the library ask for the children's illustrated classics, one of the best collections to be found in any library. The history collection is also complete and modern, as well as the collection of books covering all phases of teaching lines. Reading material with special reference to rural schools has been made an attractive feature. All books received at the school are taken to the library, where they are stamped, numbered and cataloged. A complete index system is used.

SOLDIERS' AND SAILORS' MEMORIAL FUND

Among other gifts which have been made during the year by faculty and students is that of \$600 to the Soldiers' and Sailors' Memorial Fund. A good deal of interest has been manifested in this historical enterprise. The Principal desires to take this opportunity to express his appreciation of the cooperation and generosity of the members of the faculty and student body, not only for this fund, but for other worthy objects presented from time to time for consideration. The key-note throughout the entire institution has been one of service and cooperation.

THE WORK IN GENERAL

All departments of the school are working together in unity toward a common end—that is, to create a happy working atmosphere, to look for the best and to give the best; to encourage the deserving and to eliminate the inefficient. The general health of all concerned has been excellent. The heads of the physical training, physiology and hygiene departments cooperate in promoting the general health of the student body in a sympathetic manner. Two physicians give all students a thorough physical examination with individual reports upon each case for the use of principal and faculty. Dr. F. W. Maroney, state director of physical training and hygiene, has spent one day a month in consulting with our physical training teachers and working with the students in the gymnasium. The state monograph on physical training is closely followed in every respect.

NOTE OF APPRECIATION

It is a pleasure to be associated with a faculty and a student body possessed of a keen sense of humor, a deep interest in the work and a genuine devotion to duty. This spirit of fellowship has developed a comradeship which strengthens, stimulates and unifies. The school has been well named the "Sunshine School."

Permit me to thank the members of the State Board of Education for their kindly interest and consideration.

NEW JERSEY SCHOOL FOR THE DEAF

ALVIN E. POPE, *Superintendent*

HOUSEHOLD

During the summer of 1918, eight boys and three men were employed to make various improvements about the institution. The girls' dormitories were thoroughly renovated and all the beds and mattresses were repaired. The gymnasium, which had been filled with posts to support the machinery on the floor above, was changed into a coal bin which now holds our winter's supply of coal. The horse had been sold and the barn was transformed into a cottage which now houses twenty boys. These boys do all the work about the cottage, scrub the floors, clean the windows, etc., and take great interest in doing this work. They live there without any supervisors, the military officers of their battalion being in charge. Removing twenty boys from the boys' dormitory permitted a large section of the upper floor to be partitioned off for a sorting, sewing and mending room. This saved handling the clothes several times and required one less employee. The removal of the sorting, sewing and mending rooms from the industrial building and the closing of the shoeshop (the machinery having been sold to the penitentiary) made it possible to enlarge the remaining industrial departments.

INDUSTRIAL DEPARTMENTS

The printing department now occupies the entire first floor and the wood-working, together with mechanical drawing, is on the second floor. The space formerly occupied by the sorting room (over the laundry) and the space filled with lockers and baths, which had not been used for many years, was transformed into the dressmaking and millinery departments. Each of these three departments now occupies a single large, light and airy room. Much machinery and a large supply of tools has been added to each.

The policy of the school is to put its money into a few industries and make them the best of their kind in the world rather than to maintain many industries in a mediocre fashion. These industries have been transformed from shops where the pupils were apprentices to industrial schools which compare favorably with the work of public technical schools. Definite but elastic courses of study have been outlined and are being followed in these classes.

ACADEMIC DEPARTMENT

Owing to the fact that the appropriation for teachers' salaries was so limited it was impossible to fill the six vacancies with experienced teachers, consequently beginners were employed. Most schools hesitate to employ one beginner and consider it a calamity to have two. The appropriation for the present fiscal year was increased sufficiently to enable us to fill these places with experienced teachers. We hope to have an appropriation for the fiscal year ending June 30, 1921, to make it possible for us to secure the very best teachers in the profession. The fact that we have disposed of the beginners

and now have experienced teachers, has improved the academic work 100 per cent. During the year the principal, Mrs. Carlotta A. Anderson, worked out details for a course of study which is tentatively in operation. The work was started by regrading the school: first, according to the pupil's proficiency in arithmetic; secondly, according to his ability to speak and read the lips. Thus the manual and oral classes were placed on a firm basis for years to come. The new system of grading necessitated an increased number of classes, and by a clever system of rotating, sixteen teachers were able to handle twenty-one classes. Another teacher was added during the year, making seventeen. During the latter part of the year the pupils were again tested according to their language and grammar and their progress in speech and lip reading. The pupils who showed no improvement in these lines were transferred to the manual classes.

We secured the cooperation of Dr. Pinter, professor of psychology of the University of Ohio, who is making a specialty of work among the deaf. He sent Miss Reamer as his representative to test our children. Tests were made intellectually and educationally which proved very valuable in our work of regrading.

TEACHERS' TRAINING COURSE

Mrs. Anderson also attended to the details of drawing up a complete course of study which was outlined by Dr. Savitz and myself for the establishment of a training course for teachers of the deaf in the State Normal School. This course was approved and is now in operation. In the future we hope to secure normal graduates as our teachers.

The following tables give information concerning the different classes:

SCHOOL REPORT.

	ORAL				COMBINED				MANUAL			
	Classes	Boys	Girls	Total	Classes	Boys	Girls	Total	Classes	Boys	Girls	Total
Grade 1	4	21	19	40	.....	.....	.....	.....	2	11	8	19
" 2	2	10	13	23	.....	.....	.....	.....	.....	.....	.....	.....
" 3	2	4	11	15	.....	.....	.....	.....	3	22	16	28
" 4 .....	.....	.....	.....	.....	.....	.....	.....	.....	1	4	8	12
" 5 .....	.....	.....	.....	.....	1	5	3	8	.....	.....	.....	.....
" 6 .....	.....	.....	.....	.....	1	2	4	6	.....	.....	.....	.....
" 7	1	3	6	9	.....	.....	.....	.....	.....	.....	.....	.....
" 8	1	9	3	12	.....	.....	.....	.....	1	6	4	10
" 9 .....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	1	3
" 10 .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Post Graduate....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	2	4
Total	10	47	52	99	2	7	7	14	9	47	39	86

(Method)	No. of Classes	Boys in Classes	Girls in Classes	Total	Men Teachers	Women Teachers	Total	Males in Training	Females in Training	Total
Oral	10	47	52	99	.....	7	7	.....	2	2
Combined	2	7	7	14	.....	2	2	.....	.....	.....
Manual	9	47	39	86	1	7	8	.....	.....	.....
Total	21	101	98	199	1	16	17	.....	2	2

NEW SITE

The State Legislature gave us an appropriation of \$25,000 to purchase a new site. After months of negotiating we secured the Charles A. Scudder farm, lying near Trenton Junction and just beyond the State Hospital grounds. This farm consists of 90 acres of rolling land on which is a small lake. It is doubtful if we could have found a more desirable location in the State. The transportation facilities are excellent. The farm was valued at \$40,000 and is worth that amount today. We succeeded in purchasing it for \$25,000.

FINANCIAL STATEMENT

It was necessary on several occasions to transfer various sums from certain account numbers to other account numbers and to secure some allotments from the emergency fund in order to complete the year. The appropriation, including such transfers, allotments and expenditures runs as follows for the fiscal year ending June 30, 1919:

Account Number	Appropriations and Transfers	Disbursements	Balance
57-A-1-Food	\$22,350 00	\$22,350 00	
57-A-2-Clothing	1,850 00	1,775 38	\$74 62
57-A-3-Fuel and Power	8,550 00	8,464 28	85 72
57-A-4-Household	2,550 00	2,518 80	31 20
57-A-5-School Supplies	4,100 00	4,052 63	47 37
57-A-6-Industrial Shops	1,000 00	964 09	35 91
57-A-7-Medical and Surgical	800 00	292 86	7 14
57-A-8-Sundry Supplies	3,500 00	3,500 00	
57-A-9-Incidentals	2,000 00	1,939 63	60 37
57-A-10-11-12-Salaries and Wages	43,950 00	43,780 32	169 68
57-B-1-Insurance	370 20	370 20	
57-B-2-Tailor Shop	150 00	150 00	
57-B-3-Bake Shop	600 00	600 00	
57-B-4-(Shoe Shop) Tools	350 00	307 83	42 17
57-B-5-Motors for Machines	873 50	873 50	
57-B-6-Laundry Machinery	1,439 00	1,439 00	
57-C-Land for New Site	25,000 00	25,000 00	
57-D-1-Repairs and Replacements.	2,279 80	2,261 16	18 64
Total	\$121,212 50	\$120,639 68	\$572 82
Less Cost of New Site	25,000 00	25,000 00	
	\$96,212 50	\$95,639 68	
Receipts for Year—\$3,421.78 less \$2,000 appropriated			1,421 78
Total Balance returned to the State			\$1,994 60

RECOMMENDATIONS

The recommendations for the coming year are that our appropriation for teachers' salaries be increased in order to enable us to employ the best of teachers; that money be appropriated for constructing buildings on the new site which will provide for the removal of the smaller children from the fire-trap in which they are now housed. We have an opportunity to build an educational institution second to none of its kind. By use of the cottage plan we can grade the pupils according to their ability to acquire speech and read the lips as well as according to age and intelligence. This will also enable us to do the very best oral work without in any way interfering with the manual pupils. The flexibility and adaptability of the cottage plan contributes more to the education of the deaf than any other class of children.

SCHOOL REPORT.

MANUAL TRAINING AND INDUSTRIAL SCHOOL
FOR COLORED YOUTHW. R. VALENTINE, *Principal*

I herewith submit the annual report of the Manual Training and Industrial School for Colored Youth at Bordentown, New Jersey, covering the fiscal year July 1, 1918, to June 30, 1919.

STUDENTS

The enrollment during the year in spite of war conditions was larger than the previous year, there being 104 boys and 114 girls. They were somewhat younger, however, than the year before, but more intelligent and further advanced in school. And because of the large number of applicants a candidate's moral, mental and physical fitness was more carefully scrutinized before being accepted. Even then the school was greatly overcrowded, the normal capacity of our dormitory space being only 96. In spite of the crowding, only two cases of influenza broke out during the whole year, these two being immediately isolated in the greenhouse. Each year a better grade of student is admitted and the people are gradually losing the idea that because this is an industrial school it is therefore a semi-correctional institution.

TEACHERS

The school was short of teachers, some having been called by the draft, and others leaving to enter war work. The work was therefore handicapped. For example, the print shop was closed all year. It was necessary to increase substantially the salaries of most of the teachers in service to hold them, the salaries paid here being ridiculously low even for normal times. Our salaries, however, are being gradually increased. This will give the management more of a chance to employ and hold good instructors. Our agriculturist, who was receiving \$1,200 per year—which was and is one of the best salaries paid here—left to accept a similar position in a state school in North Carolina for \$1,800. First class industrial teachers command high salaries because the labor market is paying them. A poor and cheap trade teacher in an industrial school is expensive. The Bordentown School is paying salaries far below those paid by similar schools in the south. Excellent tradesmen among colored people are scarce anyhow, and the Bordentown School cannot successfully compete with schools paying \$1,800 to \$2,500 per year.

IMPROVEMENTS

A number of improvements have been started but not completed. The sewer system has been completed to take care of the sewerage of buildings along the river front. Another division of it is necessary, however, to take care of the buildings skirting the Burlington Road. The barns are being moved to the new barnyard site, thereby allowing the grounds to be developed according to the plans drawn up by the landscape architect. Two of the seven tenement houses which were purchased are being moved—one to be used as a

principal's residence and administration building, and the other as a three-family apartment house for employees. The greatly increased cost of materials, however, will make it impossible to complete these buildings until the next Legislature provides additional funds. One well has been dug for the new domestic water system. The Legislature of 1919 also provided \$15,000 for additional water supply and a system for fire protection. This will be installed during the next fiscal year. The new girls' dormitory is in process of construction and will be completed for the opening of school in September 1919. It will contain twenty rooms, each room accommodating three girls. The building will be modern in every respect. The new boys' trade building is completed and equipped, and has been in use the greater part of the year. It is too small, however, but will be enlarged somewhat during the next year. It now contains the machine and carpenter shops, the print shop remaining in a small wooden structure which was formerly a dairy.

FARM

Many improvements have been made in the farm besides the moving of the barns to the new site. The land has been spread with 17 tons of commercial fertilizer, 200 tons of manure, and 30 tons of lime. The farm produced during the fiscal year \$10,729.64 in farm products. The prices for the various crops are wholesale and submitted from month to month by the supervisor of state farms. The prices of the last fiscal year were based upon local market prices, which were much higher than the prices used this year.

It will be recalled that several years ago the farm was rented out to a pea cannery, which added nothing to the soil, but it is now showing greatly increased productivity. At least five acres have been added by the grubbing out of hedges, 6,600 feet of fencing have been put up, and a good road running through the farm has been constructed.

A register Holstein bull has been added to the herd of 21 head of cattle. They have been given the tuberculin test by the Agricultural Department. Defective cattle are being gradually eliminated. The school raises not more than 100 pigs.

TEACHING OF AGRICULTURE

I am convinced that the best results can be obtained by separating the production end of the farm from the teaching end. By mixing the two production is lowered and the teaching hampered. A certain part of the land should be set aside for project work for those boys selecting agriculture, all boys, however, as a part of their maintenance, to be compelled to give a specified number of hours of work on the farm for purely production purposes.

The teaching end of the agricultural work is in the hands of a scientifically trained farmer. In addition to this, however, he is in charge of the extension farm work among colored farmers in South Jersey, especially Salem and Cumberland Counties. For example, the work of last year in that direction has been kept up in spite of the handicaps due to war conditions along the same lines as indicated in the report for 1918. This work will be expanded.

Another feature of the work of the agriculturist was the school gardens

participated in by both boys and girls. Each student was responsible for a garden—its laying out, the preparation of the ground, the planting of seeds and the care of the plot. The walks were laid out symmetrically among the 100 plots; flowers were planted on the border, and the whole was fenced in. The boys in the plumbing department piped water into the garden for convenient use. In addition to its usefulness, the garden was a thing of extreme beauty. Prizes were awarded the best plots as judged by a very competent committee.

THE SMITH-HUGHES FUND

The school met the requirements of the Smith-Hughes Fund in domestic science, sewing, and machine work, and received a check of \$1,215 from the federal government as its share of reimbursement. It was impossible, however, for this to be accredited to the use of the school because of legal complications. The money reverted to the general treasury of the state. It is to be regretted that the school can not enjoy the advantages of the Smith-Hughes Fund. The advantages are these: (1) ability to pay larger salaries to trade teachers, thereby making it possible to hold and secure more and better teachers; (2) the supervision of experts; (3) the prestige resulting from the ability to qualify under the rigid rules governing the Fund. It is hoped that a way can be found at the 1920 session of the Legislature to make it possible for the school to share in the advantages of the Fund.

WAR WORK

In addition to the war work enumerated in our 1918 annual report, the school raised \$400 as a contribution to the Memorial Building to be erected in Trenton to the New Jersey Soldiers and Sailors who fought in the war. This money was raised by subscriptions from students, parents, and friends.

PUBLICITY

The school is seriously in need of publicity. Some progress was made in this direction this year by sending a troupe of singers over the State. They featured the jubilee songs for which the race is noted, these songs being the negroes' contribution to the music of the country. The troupe was well-trained, and made a fine impression for the school. Thousands of white citizens were reached through the churches.

SUMMER MEETINGS

At least 1,500 persons visited the school during the summer of 1918 by reason of the meetings held on the school grounds. For example, the Colored Women's State Federation of Clubs held a two day session here. A Chautauqua was held in August, bringing together prominent persons from all parts of this section. Picnics were brought here. These are in addition to the commencement exercises. At the same time these meetings gave the school the chance to make progress in carrying out its program to make of

itself a civic center and meeting place for colored people for all sections of the state. This work will be continued and increased from year to year. The summer school for the year increased in numbers. The school gardens and farm were kept up; hundreds of cans of vegetables and fruit were put up. The school is open, therefore, the whole year round.

LECTURES TO TEACHERS

The State Department of Public Instruction supplied a course of lectures for the teachers. They were given by experts in their several fields. These proved very valuable in increasing the information of the teachers and helping them professionally. It is hoped that they will be continued next year.

DONATIONS OF SCHOLARSHIP

I am glad to cite this additional instance of the cooperation now extended by the colored public in the work of the school. The Scotia Scholarship Society of Jersey City, of which the president is Mrs. M. Cannon Spraggins, and the secretary is Mr. Henry Martin, 272 Forrest Street, gave the school \$25 to be used to help defray the expenses of a worthy student. This money was used as a contribution to the board of Miss Lorena Appleton of Atlantic City. Miss Appleton is an ambitious young women who has struggled against all sorts of difficulties to receive an education, and will give finally a good account of herself. The Scotia Society received the thanks of the State Board of Education through its president, Mr. M. A. Rice.

PRESSING NEEDS

The school is growing and this growth requires additional equipment. Even with the students now enrolled we are short of classroom space; the classes are too large, therefore requiring additional teachers; the dining room—a dark basement room in the administration building—is crowded. The new girls' dormitory and the emergency barracks for the boys which will be completed next November will relieve temporarily our crowded condition. It seems that our immediate and pressing need is a large building containing a student dining room with kitchens, an auditorium capable of seating 600, and a gymnasium. This will release space in the present administration building for additional classrooms by allowing the present assembly hall to be divided into classrooms. In short we need to provide adequate educational facilities for the present and future enrollment before further increasing our dormitory space, or substantially increasing the enrollment.

Another pressing need—and I am only mentioning in this report the most pressing needs—is an enlargement of the laundry building and its equipment. It is absolutely impossible to turn out the laundry with the present equipment. This causes inconvenience and in many cases hardship. Moreover, it is unsanitary.

Then, too, the extension work of the school should be one of the most important features of the work. The school should reach out into the state. An extension worker should be employed to take charge of this work. Such a

worker should be a well-trained man or woman who would follow up students who leave the school so that a student would never lose contact. He should be kept inspired, kept in employment, and tided over the baffling period of his life in the world by the friendly and sympathetic help of the school. The school would then conserve a larger proportion of its human output. Such a worker would organize and conduct farmers' institutes and canning clubs and organize Bordentown School Associations, thereby securing direct cooperation from the colored public. He would investigate applicants for admission, etc.

It is necessary also for the school to give girls experience with power machines; to prepare them for the needle trades if they desire it. Industrial opportunities of a new kind are opening up for the colored people of the state, growing out of the shortage of labor, and the school should adjust its courses to meet these conditions. This adjustment will require more and better paid instructors. We should run short courses here, and send instructors into industrial plants, where invited, to improve the general training of the colored worker.

The year has been encouraging because of the faithful performance of duty by a devoted and well-trained corps of workers, because of a vital interest in the work manifested by the State Board of Education through Colonel D. Stewart Craven, chairman of the Bordentown School Committee, because of the liberal cooperation extended by the Department of Public Instruction, and the interest shown by the Legislature. The school is bound finally to fulfill its mission.

SCHOOL OF INDUSTRIAL ARTS OF TRENTON

ROBERT C. BELVILLE, *Secretary Board of Trustees*; FRANK F. FREDERICK, *Director School of Industrial Arts*

I submit herewith statement of the enrolment in this school for the school year 1918-19.

ENROLLMENT OF STUDENTS 1918-'19

Total number enrolled		1065
Males	623	
Females	442	
	<hr/>	1065
Attending evening only	888	
Attending day only	146	
Attending both day and evening	31	
	<hr/>	1065

ENROLMENT IN DEPARTMENTS

Fine Art	164	
Art-Crafts	20	
Mechanical	306	
Architectural	37	
Electrical	73	
Chemical	38	
Dressmaking and Millinery	266	
Children's (Saturday only)	69	
Woodworking	32	
Day Technical Department	68	
	<hr/>	1073
In more than one department	8	
	<hr/>	1065

SUMMARY OF TRADES AND PROFESSIONS REPRESENTED IN THE SCHOOL

Employed in Shops, Mills and Factories	188	
Machinists and Machinists' Apprentices	76	
Potters	24	
Building and Woodworking Trades	42	
Electrical Trades	24	
Draftsmen and Designers	28	
Clerks, Stenographers, etc.	168	
Housekeepers	25	
School teachers	99	
Other Trades and Professions	67	
No occupation reported	53	
At home	74	
Students from other schools	132	
Students of S. I. A. only	65	
	<hr/>	1065
Total Enrolment Year 1918-19	1065	
Total Enrolment Year 1917-18	1046	
	<hr/>	
Increase over last year	19	

SCHOOL REPORT.

The shop building, for which the City of Trenton appropriated approximately \$50,000, is now nearing completion and is expected to be ready for classes in September. In this shop will be a machine shop, a wood shop and a pottery. The entire equipment will be contributed by the manufacturers of the city.

In this building will be conducted day and evening classes in machine shop practice and in woodworking, and evening classes in ceramics and in the automobile engine. The day wood and metal courses are planned to meet the requirements of the Federal Board for Vocational Education.

Respectfully submitted,

FRANK F. FREDERICK,
- Director.

FINANCIAL REPORT OF BOARD OF TRUSTEES OF SCHOOLS FOR
INDUSTRIAL EDUCATION OF TRENTON FOR YEAR
ENDED JUNE 30, 1919

RECEIPTS

City Appropriation	\$18,000.00	
State Appropriation	10,000.00	
Tuition Fees	3,473.22	
Interest on Deposits	104.45	
Materials sold pupils	3,735.70	
Rent	210.00	
Prize Money	447.50	
Shop Building Equipment Fund	5,376.39	
	<u>\$41,347.26</u>	
Balance on hand July 1, 1918	6,524.41	\$47,871.67

DISBURSEMENTS

Teachers' Salaries	\$24,634.32
Janitors' Salaries	1,397.20
General Salaries	2,299.08
Fuel	814.90
Light and Power	662.71
Furniture and Equipment	1,802.45
Printing	422.25
Materials	2,369.10
Advertising	233.10
Repairs	381.75
Miscellaneous	1,023.87
Models	264.00
Library	103.15
Insurance	144.87
Prizes	322.76
Shop Building Equipment	5,408.67
	<u>\$42,285.08</u>

Cash Balance June 30, 1919:

Shop Building Fund	\$5,512.32
Regular Account	74.27

\$5,586.59

\$47,871.67

ROBERT C. BELVILLE,
Secretary Board of Trustees.

BOARD OF TRUSTEES OF SCHOOLS FOR INDUSTRIAL
EDUCATION, HOBOKEN

Statements showing time given in instruction for the school year September 15, 1918, to July 1, 1919.

A. DAY SCHOOL—PREVOCATIONAL CLASSES FOR GIRLS

Section No.	No. in Class	Hours per week				Weeks per year
		Sewing	Cooking	Rel. Subjects	Total	
1	4	8	7	10	25	37½
2	10	7	8	10	25	37½
3	17	7	8	10	25	37½
Total	31				25	37½

B. EVENING SCHOOL—VOCATIONAL CLASSES FOR WOMEN

Activity	Enrolment	Attendance	Hours	
			Evenings per year	per evening
Sewing	61	43	54	2
Cooking	28	21	54	2
Millinery	27	22	54	2
Dressmaking	23	18	54	2
Total	139	104	54	2

C. DAY SCHOOL—MANUAL TRAINING CLASSES FOR GIRLS

School	No.	Activity	Enrolment	Attendance	Minutes	
					per week	Weeks per year
	1	Cooking	101	91	75	37½
	2	Cooking	8	7	75	37½
	3	Sewing	64	62	75	37½
	4	Sewing	37	35	75	37½
	5	Sewing	5	5	75	37½
	7	Sewing	37	35	75	37½
Parochial		Sewing	175	151	60	37½
Parochial		Cooking	41	40	60	37½
Hob. Academy		Cooking	13	9	120	37½
Total			481	435		37½

RICHARD A. BEYER,
Director.

FINANCIAL STATEMENT

RECEIPTS

Balance of funds on hand, July 1, 1918.....		\$570.19
Appropriations: City of Hoboken.....	\$7,000.00	
State of New Jersey	7,000.00	
	<u>\$14,000.00</u>	
Interest on daily balances	\$60.49	
Refund on Telephone service	43.44	
Sales—Product of pupils	264.78	
	<u>368.71</u>	
Total receipts for year		\$14,368.71
Receipts for year and balance on hand commencement of period		<u>\$14,938.90</u>

SCHOOL REPORT.

DISBURSEMENT.

(1) GENERAL ADMINISTRATION

Secretary, salary	\$400.00	
Clerk to Supervisor, salary	1,000.00	
Office supplies	122.20	
Telephone service	71.62	
Insurance	117.44	
	<hr/>	\$1,711.26

(2) SCHOOL ADMINISTRATION AND INSTRUCTION

Supervisor, salary	\$1,000.00	
Teachers, salary	5,449.38	
Supplies, sewing	287.36	
Supplies, cooking	92.35	
Equipment, machines	243.20	
	<hr/>	\$7,072.29

(3) OPERATION AND MAINTENANCE

Janitor, salary	\$1,000.00	
Janitor, supplies	84.04	
Repairs, general	226.19	
Supplies, general	56.44	
Annual care of clocks	22.00	
Light and Power	367.42	
Incidentals	135.28	
	<hr/>	\$1,891.37

Total cost of operating Day School	<hr/>	\$10,674.92
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EVENING SCHOOL

Teachers' salaries	\$2,154.00	
Janitors' salaries	112.00	
Advertising	47.00	
Supplies—Dressmaking ...	\$37.13	
Millinery	21.84	
Sewing	135.02	
Total cost of Evening School	<hr/>	\$2,506.99
Total cost of operating Day and Evening School	<hr/>	\$13,181.91
Balance of funds on hand at close of year June 30, 1919.....		1,756.99
Total of expenditures and balance on hand at close of year.....	<hr/>	\$14,938.90

RECONCILIATION OF BALANCE

Cash in Second National Bank of Hoboken.....	\$1,971.46	
Cash in Hoboken Bank for Savings	22.82	
	<hr/>	\$1,994.28

Warrants outstanding:

Previous year	\$3.50
No. 6239 Pub. Service Corp.	7.47
No. 6240 Robt. Rath	2.73
No. 6241 A. Y. Letts	48.50
No. 6242 O. K. Electric Equip. Co.....	3.75
No. 6251 E. Hunter	33.33
No. 6253 Pub. Service Corp.	7.58
No. 6254 M. Hendberg	12.00
No. 6255 W. Simon	7.05
No. 6256 Chas. Braun	15.00
No. 6257 Pub. Service Corp.	23.59

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No. 6258	R. A. Beyer	17.40	
No. 6259	Home Economics	6.00	
No. 6260	N. Y. Telephone Co.	16.00	
No. 6261	G. & C. Spangenberg	3.50	
No. 6271	Pub. Service Corp.	29.89	
			237.29
Balance as per statement above			\$1,756.99

Respectfully submitted,

BERNARD VEZZETTI,
Treasurer.

SCHOOL REPORT.

NEWARK COLLEGE OF TECHNOLOGY

D. R. HODGDON, *Director*

I beg to submit the following report from our institution. The Newark Technical School on December 6, 1918, changed its name to the Newark College of Technology, following the granting of the privilege to confer degrees.

The institution has increased considerably during the past year. The day school has increased from 43 pupils to 242. The evening school has increased from about 500 to over 800. The day school has established courses in electrical, mechanical and chemical engineering. The evening school has established six-year courses in industrial chemical, electrical and mechanical engineering. All these courses are laid out to fit the needs of this community. The school has also increased its equipment by its own efforts and by the efforts of the Federal Board, in the machine shop, electrical, mechanical and chemical departments.

The Federal Board for Vocational Education has 204 men in training in this institution up to the present date. Many of these men have lost a limb, have been gassed or shell shocked. I feel that this institution is doing splendid work in training the maimed and the wounded who have returned from the battle field. These men are taking courses in machine shop, electrical and mechanical engineering, steel structural design, surveying, automobile and short chauffeur courses, mechanical drafting and sign painting. There is also a class of young men known as the Americanization group. There are 74 in this group. To date 21 different nations are represented. These men are learning to speak English, to read and write, and to become citizens of America. We can hardly call them aliens because they have fought and have been wounded for the United States of America. In this class we have a few who cannot read or write; others who are better educated but are unable to speak English easily, and a few American boys who are quite illiterate. I consider this to be one of the big things which this institution is doing, and I hope the Americanization group will continue to grow larger and better as time goes on.

I have added to the force in the daytime 11 new teachers who are specializing in different fields of industrial education.

REPORT OF THE BOARD OF TRUSTEES OF THE TEACHERS' RETIREMENT FUND

For the Year Ending June 30th, 1919

LEGISLATIVE RECORD

From the beginning, the Teachers' Retirement Fund has been a part of the School Law of the State of New Jersey. The Legislative enactments are as follows:

Chapter 32, page 58, Laws of 1896—approved March 11th.

Chapter 178, page 475, Laws of 1899—approved March 24th.

Chapter 96, page 270, Laws of 1900; Article XXIII., School Law—approved March 23rd.

Chapter 36, page 150, Laws of 1902; Article XXVII., School Law—approved March 26th.

Chapter 1, page 80, Laws of Second Special Session, 1903; Article XXV., School Law—approved October 19th.

Chapter 95, page 194, Laws of 1905—approved April 3rd.

Chapter 314, page 689, Laws of 1906—approved June 13th.

Chapter 139, page 365, Laws of 1907; Article XXV., School Law—approved May 7th.

Chapter 106, page 166, Laws of 1915—approved March 30th.

Chapter 180, page 514, Laws of 1918—approved March 4th.

Chapter 81, page 186, Laws of 1919—approved April 10th.

APPROPRIATION TO PAY ADMINISTRATIVE EXPENSES

The first Act by which the State appropriated money toward the expense of administering the Fund was Chapter 95, page 194, Laws of 1905, approved April 3rd, which allowed \$1,500.00, and became effective November 1, 1906. Prior to said date, administrative expenses were taken from the Fund.

REPORT

Report of the Board of Trustees of the Teachers' Retirement Fund of the State of New Jersey for the fiscal year 1918-1919; presented to the Annual Convention of the Teachers' Retirement Fund, held in the Assembly Cham-

ber, State House, Trenton, New Jersey, at twelve o'clock, noon, on Saturday, September 27, 1919.

September 27th, 1919.

To the Members of the Teachers' Retirement Fund of the State of New Jersey:

In compliance with the law, I have the honor to submit the report of the Board of Trustees for the fiscal year which ended June 30, 1919.

Respectfully,

ARTHUR W. MILBURY,
Assistant Secretary.

STATE TREASURER'S DEPARTMENT

Trenton, N. J., July 25, 1919.

To the Board of Trustees, Teachers' Retirement Fund.

GENTLEMEN: The following is the annual statement of receipts and disbursements of the Teachers' Retirement Fund for the year ending June 30, 1919.

RECEIPTS

Balance in bank July 1, 1918.....		\$93,705.87
*Members' dues	\$273,650.86	
Interest on Investments	22,481.82	
Interest on Deposits in Bank	3,368.29	
Premium and Accrued Interest	1.39	
Annuity	192.14	
Temporary Investments paid off	15,000.00	
		<hr/>
		\$314,694.50
		\$408,400.37

DISBURSEMENTS

Annuities	\$293,379.93	
Dues refunded	57.50	
Premium and Accrued Interest	1,430.17	
Rebate	312.08	
Temporary Investments	56,814.72	
Transfer to Investment Account Cash	1,000.00	
		<hr/>
		\$352,994.40
Balance in Bank June 30, 1919.....		\$55,405.97

*The actual income from members' dues, paid and payable, was far in excess of these figures; possibly, \$30,000, or more, excess. At the time the State Treasurer's books closed for the year, June 30, 1919, many districts had not remitted for the April-June quarter, (the subsequent receipts have been abnormally large,) but it will be impossible to discover what the 1918-1919 income might have been under ordinary circumstances, because the new legislation, effective April 10, 1919, permitted members to withdraw from the Fund, and a large number withdrew in time to prevent their May and June dues from being deducted, which, of course, reduced the normal 1918-1919 income.

TEMPORARY INVESTMENTS

The following are the security of the Temporary Investment Account:

BONDS

	Par	Cost
City of Paterson Sewer Funding 5%.....	\$27,000	\$27,208.80
City of Orange Sewer Refunding 5%	20,000	20,249.70
City of Orange Central Fire House 5%.....	14,000	14,172.00
Town of Montclair Impt. 5%.....	10,000	10,152.49
Town of Montclair School 4½%.....	13,000	12,945.30
City of Orange Sewer and Fire House 5%.....	5,000	5,164.24
City of Perth Amboy Water 4½%	2,000	1,980.00
Jersey City Funding Debt Water bonds 5%.....	1,000	1,008.10
Boro. of Edgewater School 5%	1,000	1,008.40
Jersey City, Assmt. Gold 5%.....	1,000	1,015.00
Milwaukee Lake Shore & Western Ry. Co. 6%.....	10,000	10,200.00
Twp. of Lyndhurst Sewer 5%	10,000	10,052.67
Jersey City, Assessment & Water 5%	2,000	2,015.00
Twp. of Ridgewood School 4%	2,000	1,887.20
Twp. of Bernards School 5%	10,000	10,000.00
Town of Union Street Impt. 5%	6,000	6,000.00
Town of Union Fire & Police Signal System 5%.....	5,000	5,000.00
Village of Ridgewood St. Impt. 5½%	8,500	8,628.35
		<u>\$148,687.25</u>

PERMANENT PRINCIPAL

RECEIPTS

Balance in bank July 1, 1918		\$13,381.07
Duplicate certificates	\$8.00	
Investments (Securities paid off)	36,750.00	
Transfer from General Account	1,000.00	
	<u>37,758.00</u>	
		\$51,139.07

DISBURSEMENTS

Investments made during the year	\$46,893.00
Balance in bank June 30, 1919.....	<u>\$4,246.07</u>

The following are the securities of the PERMANENT PRINCIPAL:

Trustees of the Olivet Presbyterian Church Atlantic City	5%	\$6,500.00
Lewis T. and Mary L. Bryant	5	20,000.00
Atlantic City Loan and Bldg. Co.....	6	10,000.00
Samuel Ginsburg (Simon Senville)	6	7,500.00
Morris and Sarah Abrams and Abraham and Annie Kunsman	6	10,000.00

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Joseph Perry, et ux	6	3,000.00
Wolf and Fannie Levin	6	5,000.00
Hyman and Annie Kramer	6	6,000.00
Max and Rose Slaff	6	4,000.00
Abraham and Sarah Kanter	6	4,000.00
William C. Godstrey, et ux	5½	14,000.00
Ralph Bernhardt	6	25,000.00
		<hr/>
		\$115,000.00

BONDS

Board of Education of Boro of Lodi, Bergen Co.	5%	\$3,000.00
Boro of Haddon Hgts., Camden Co., School	4½	10,000.00
Margate City, Atlantic Co., Water	5	15,000.00
Margate City, Atlantic Co., Sewerage	5	5,000.00
Margate City, Atlantic Co., School	5	20,000.00
Boro Holly Beach, Cape May Co., Funding	5	5,000.00
Bd. of Education Twp. of Overpeck, Bergen Co.....	5	20,000.00
Bd. of Education Twp. of Overpeck, Bergen Co.....	5	5,000.00
Margate City, Atlantic Co., Beach Impt.	5	6,500.00
Margate City, Atlantic Co., Fire Station	5	5,000.00
Margate City, Atlantic Co., Improvement	5	7,000.00
County of Hudson Park	4	12,880.00
City of Bayonne, Gold Funding	5	3,000.00
City of Perth Amboy, Park Funding	4½	1,912.17
Southern Pacific R. R. Co., 1st Refunding	4	4,710.00
Chicago, Burlington & Quincy R. R. Co.	3½	5,075.00
New York Central & Hudson River R. R. Co.....	3½	3,525.00
Middlesex County Road	4¾	6,000.00
Town of Nutley, Funding and Refunding	5	18,000.00
City of Bayonne, School	4½	2,940.00
United States 4th Liberty Loan Bonds	4¼	6,643.00
		<hr/>
		\$166,185.17
Bonds and Mortgages	\$115,000.00	
Bonds	166,185.17	
	<hr/>	
	\$281,185.17	

The following is the condition of the Fund at the close of business June 30, 1918.

Investments	\$281,185.17	
Balance in bank, Investment Acct.	4,246.07	
	<hr/>	\$285,431.24
Temporary Investments	148,687.25	
Balance in bank, General Acct.	55,405.97	
	<hr/>	\$204,093.22
		\$489,524.46

Respectfully subn.ated,

(Signed) W. T. READ,

Treasurer.

COMPARATIVE ABSTRACT OF STATE TREASURER'S REPORTS
FOR 1914-'15, 1915-'16, 1916-'17, 1917-'18 AND 1918-'19

(NOTE.—*No liabilities on the year's business; annuities and expenses paid in full to end of June.*)

	1914-1915	1915-1916	1916-1917	1917-1918	1918-1919
*Receipts	\$246,390.22	\$278,628.86	\$313,953.41	\$300,043.74	\$351,452.50
**Disbursements ..	221,163.82	249,502.48	293,015.82	412,454.32	398,887.40
†Assets at close of fiscal year	432,183.55	465,309.93	484,247.52	485,001.64	489,524.46

LIST OF BENEFICIARIES TO JUNE 30th, 1919

The following is a schedule of all members who have been retired on annuity from the beginning to June 30, 1919, and shows; (1) The annuity and membership numbers; (2) Name, with district and county retired from; (3) Net annual value of annuity,—see "Note;" (4) Date annuity began to accrue,—see "Note"; (5) Total received to June 30, 1919. The 1918-1919 annuities begin with Number 779.

NOTE.—The first annuity was granted December 3, 1897; numbers 1, 2 and 3 began to accrue December 1, 1897. Annuities granted under Acts prior to that of 1907 are subject to one per cent deduction for the Fund and are indicated by a dagger—†. All annuities granted under Acts prior to that of 1907 began to accrue on the first day of the quarter succeeding the date of granting, except Nos. 1, 2 and 3, which began to accrue December 1, 1897. Under the latest Act, that of 1907, annuity begins to accrue from the date it is granted, and no deduction is made for the Fund. The Act of 1906 raised dues from a flat one per cent to two, two and one-half and three per cent, (based on total years of public school teaching service prior to date of originally becoming a member,) for all old members who in writing should accept the Act of 1906 prior to Jan. 1, 1907, and for all teachers who should join voluntarily prior to Jan. 1, 1908, and made membership part of the contract of all teachers who should be appointed to New Jersey's public school system on or after Jan. 1, 1908. Annuities granted under the Act of 1906

*Receipts include "securities paid off":—1914-'15, \$10,500.00; 1915-'16, \$14,500.00; 1916-'17, \$37,000.00; 1917-'18, \$22,500.00; 1918-'19, \$51,750.00.

**Disbursements include "investments":—1914-'15, \$14,000.00; 1915-'16, \$18,870.49; 1916-'17, \$35,000.00; 1917-'18, \$129,372.53; 1918-'19, \$103,707.72; not including premiums and accrued interest.

†It is believed that the actual assets in hand and due on June 30th, were not less than \$500,000.00; see note, first page of State Treasurer's report.

are indicated by a double dagger—††. The Act of 1907 retained the aforesaid 1906 provisions, except that it extended to January 1, 1909, inclusive, the period during which old members and teachers appointed prior to Jan. 1, 1908, might accept the new provisions. All annuities below-scheduled were granted under the Act of 1907, except those indicated by a single dagger—†—(Act prior to 1906,) or a double dagger—††—(Act of 1906). All annuities to No. 134, inclusive, were granted under Acts prior to that of 1906. The date given for each annuity is the date on which the annuity began to accrue, irrespective of the Act under which it was granted. The amount of annuity stated is the net amount; i. e., the amount actually received by the annuitant. Net is less than gross for all annuities granted under Acts prior to 1907, because one per cent is deducted for the Fund. Net is less than gross for some of the 1907-Act annuities, because the quarters total a few cents less than the gross.

Annuities granted under all acts prior to 1907 are half the average of the last five years' salary; minimum \$250.00, maximum \$600.00, with one per cent deducted for the Fund, and begin to accrue on the first day of the quarter next following the granting. Annuities granted under the Act of 1907 are six-tenths the average of the last five years' salary; minimum \$250.00, maximum, \$650.00; nothing deducted for the Fund, and begin to accrue from the date of granting.

Under all acts prior to 1906, an annuitant was required to pay into the Fund a total (including monthly dues paid) of at least twenty per cent. of his or her last year's salary before any annuity could be paid to the beneficiary. The act of 1906 requires the annuitant to pay into the Fund an amount (including monthly dues paid) equal to at least the annuity for one year,—maximum payment, \$1,000. The Act of 1907 requires a beneficiary to pay into the Fund an amount equal to at least one year's annuity, (maximum payment, \$1,000,) but provides that the deficit, over and above monthly dues paid, may be liquidated by accruing annuity.

Deceases are indicated by an asterisk—*. Annuities which deceased before the deficit to the Fund was paid are indicated by a double asterisk—**; these are charged with the amount of accrued annuity, (amount Recd. from Fund,) and same is credited under amount paid to Fund, (amount paid on account of deficit). The amount of annuity charged to decedents includes balance due estate on June 30, 1919; where such a balance exists, it is indicated by ‡*.

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Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1919.
† 1—131:	Joseph P. Leighton, Washington Township, Morris Co.....	\$247 48	Dec. 1, 1897	\$1,292 78
† 2—2132:	Almira Walker, Orange, Essex Co.	247 48	" " "	2,355 38
†*† 3—2131:	Abby M. Munn, Montclair, Essex Co.	371 24	" " "	5,700 01*
† 4— 3:	Jacob Moench, Carlstadt, Bergen Co.	247 48	Jan. 1, 1898	95 13
† 5—2130:	Helen F. Hall, Maurice River Township, Cumberland Co.....	247 48	Apr. 1, 1898	948 88
† 6— 510:	Phebe Hancock, Newark, Essex Co.	495 00	" " "	10,250 53
† 7—1596:	Phoebe A. Brigham, Jersey City, Hudson Co.	504 88	" " "	2,603 06
† 8—1553:	Imogene L. Colvin, Jersey City, Hudson Co.	308 88	July 1, 1898	866 58
† 9—1238:	Sarah J. Reynolds, Paterson, Passaic Co.	265 80	Jan. 1, 1899	4,335 99
† 10—2211:	Clara Bonham, Kingwood Township, Hunterdon Co.	247 48	" " "	1,325 79
† 11—1060:	Mrs. Helen S. Donkersley, Paterson, Passaic Co.	321 76	" " "	6,596 08
† 12—2118:	Thamer Snover, Stillwater Township, Sussex Co.	247 48	Apr. " "	1,237 40
† 13—2264:	Anna Marshall, Millville, Cumberland Co.	247 48	" " "	223 91
† 14— 478:	Louise Chedister, Newark, Essex Co.	396 00	" " "	2,542 32
† 15— 840:	Sallie T. Brown, Camden City, Camden Co.	371 24	" " "	2,227 45
† 16— 838:	M. Jennie Wood, Camden City, Camden Co.	371 24	" " "	5,870 43
† 17—2210:	James Corkery, Lacey Township, Ocean Co.	297 00	" " "	470 25
† 18—1383:	Jennie Hutchinson, Trenton, Mercer Co.	247 48	" " "	5,011 47
† 19—1155:	Annie M. Atkinson, Paterson, Passaic Co.	247 48	Jan. 1, 1900	4,825 86
† 20— 347:	Mrs. E. Jennie Wortman, Rutherford Borough, Bergen Co.....	311 84	" " "	1,046 48
† 21—2127:	Mrs. Harriet J. Strang, Monroe Township, Gloucester Co.....	247 48	" " "	3,319 22
† 22—2038:	Anna R. Burr, Northampton Township, Burlington Co.....	247 48	" " "	4,825 86
† 23—2021:	Hattie F. Hoffman, Penn's Grove Borough, Salem Co.....	247 48	" " "	247 48
† 24—2187:	Samantha Wheeler, Bloomfield, Essex Co.	272 24	" " "	5,308 69
† 25—2230:	Mrs. Hannah A. Collins, Commercial Township, Cumberland Co.	247 48	" " "	164 86
† 26— 223:	Ella Hazard, Rahway, Union Co.	247 48	Apr. " "	2,041 71
†*† 27—1417:	Janet F. Wright, Trenton, Mercer Co.	247 48	" " "	3,123 76*
† 28— 64:	Emily S. Sayre, Woodstown Borough, Salem Co.....	350 68	" " "	185 09
† 29— 935:	Hannah Oven, Orange, Essex Co.	247 48	July 1, 1900	4,702 12
† 30—2243:	Mrs. Mary S. Bond, Delaware Township, Hunterdon Co.....	247 48	" " "	2,041 71
† 31— 199:	Carrie B. Runyon, Plainfield, Union Co.	371 24	Oct. 1, 1900	1,922 18
† 32— 416:	Mrs. Esther J. Crosby Parker, Newark, Essex Co.	495 00	Jan. 1, 1901	9,157 50
† 33— 14:	Sarah R. Bowne, Princeton Borough, Mercer Co.	292 04	" " "	5,026 28
† 34— 123:	Mary G. Lindsley, Morristown, Morris Co.	284 60	Jan. 1, 1901	338 13
† 35— 655:	Laura C. Delano, Newark, Essex Co.	321 76	Apr. " "	884 84
† 36— 263:	Kate G. Focer, Glassboro Township, Gloucester Co.	247 48	" " "	4,516 51
† 37— 32:	Nathaniel Kiser, Mendham Township, Morris Co.	247 48	" " "	3,543 54
† 38— 841:	Helen Bamber, Camden City, Camden Co.	247 48	" " "	3,804 58
† 39—2353:	Ellen Smith, New Brunswick, Middlesex Co.	247 48	" " "	3,384 98
† 40—2354:	Harriet E. Smith, New Brunswick, Middlesex Co.	247 48	July " "	1,845 97
† 41—1906:	Helen E. Tift, Hoboken, Hudson Co.	415 80	" " "	2,113 65

†Granted under Act prior to 1906.

*Deceased.

†*Balance due estate of deceased annuitant.

Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.		Total Rec'd to June 30, 1919.
† 42— 673:	Alice E. Johnson, Newark, Essex Co.	\$396 00	July	1, 1901	\$7,128 00
† 43— 397:	Jane E. Johnson, Newark, Essex Co.	594 00	Oct.	1, 1901	3,201 00
† 44—1314:	Mrs. Orrell F. Elwell, Trenton, Mercer Co.	247 48	"	" "	1,535 99
† 45— 12:	Mrs. Hattie A. Lindaberry, Lebanon Township, Hunterdon Co.	247 48	Jan.	1, 1902	4,330 90
† 46— 28:	Noah E. Jeffery, Howell Township, Monmouth Co.	247 48	"	" "	3,774 07
† 47— 377:	Ellen Couenhoven, Passaic City, Passaic Co.	316 80	"	" "	1,900 80
† 48—2345:	Sarah Rankinback, New Brunswick, Middlesex Co.	356 40	Apr.	" "	63 45
† 49—2191:	Kate F. Hubbard, Bloomfield, Essex Co.	372 24	"	" "	4,696 14
† 50— 217:	Minnie Whitehead, Rahway, Union Co.	247 48	"	" "	2,696 84
† 51— 61:	Mrs. Jennie L. Morris, Long Branch, Monmouth Co.	297 00	July	" "	123 75
† 52—2256:	Emma L. Hodgkins, Boonton Town, Morris Co.	247 48	"	" "	3,603 38
† 53—1728:	Emma Johnson, Jersey City, Hudson Co.	401 92	Jan.	1, 1903	6,631 68
† 54—1534:	Florence M. Coppinger, Jersey City, Hudson Co.	323 12	"	" "	5,331 48
† 55— 761:	Margaret A. Rasch, Newark, Essex Co.	321 76	"	" "	5,309 04
† 56— 139:	Emily A. Davis, Lambertville, Hunterdon Co.	247 48	"	" "	4,083 42
† 57— 321:	Priscilla H. Redfield, Gloucester City, Camden Co.	246 48	Apr.	" "	464 15
† 58—2034:	Jeremiah Kelly, Hoboken, Hudson Co.	594 00	Jan.	" "	8,732 01
† 59—1475:	Mrs. Eliza J. Eveland, Jersey City, Hudson Co.	534 60	"	" "	164 83
† 60— 319:	William Dougherty, Gloucester City, Camden Co.	495 00	"	" "	1,894 75
† 61— 134:	Ida F. Stout, Lambertville, Hunterdon Co.	247 48	"	" "	4,083 42
† 62— 42:	Rachel H. Strong, Waterford Township, Camden Co.	297 00	"	" "	2,823 11
† 63— 601:	Eunice A. McLeod, Newark, Essex Co.	441 52	Apr.	1, 1903	7,174 70
† 64—2049:	Ephraim M. Shadinger, Howell Township, Monmouth Co.	247 48	"	" "	3,528 63
† 65— 97:	Mrs. P. K. Hendrickson, Freehold Township, Monmouth Co.	247 48	"	" "	2,326 85
† 66—2194:	Jane Eliza Baird, Bloomfield, Essex Co.	254 92	"	" "	3,956 84
† 67—2102:	Sanford S. White, Byram Township, Sussex Co.	247 48	"	" "	4,021 55
† 68—1982:	Rev. Samuel D. Quigg, Beverly Township, Burlington Co.	247 48	"	" "	2,088 11
† 69— 858:	Anita A. Wright, Camden City, Camden Co.	349 96	"	" "	5,696 85
† 70—2383:	Nehemiah Reece Whitaker, Lumberton Township, Burlington Co.	247 48	Oct.	1, 1903	3,897 81
† 71—2188:	Edith E. Hulin, Bloomfield, Essex Co.	272 24	"	" "	2,419 82
† 72— 634:	M. Adelaide Healy, Newark, Essex Co.	321 76	"	" "	5,067 72
† 73—2346:	Annie B. Stelle, New Brunswick, Middlesex Co.	336 60	"	" "	1,053 48
† 74—1393:	Lydia V. Marden, Trenton, Mercer Co.	257 40	"	" "	1,179 60
† 75—1422:	Marcia M. Wright, Trenton, Mercer Co.	356 40	"	" "	3,251 18
† 76— 301:	Jacob B. Maxwell, South Orange, Essex Co.	594 00	"	" "	362 20
† 77—1354:	George H. Voorhis, Trenton, Mercer Co.	594 00	Jan.	1, 1904	4,378 22
† 78—2099:	John M. Sullivan, Washington Township, Burlington Co.	247 48	"	" "	1,326 47
† 79— 5:	Mrs. Deborah J. Bateman, Commercial Township, Cumberland Co.	247 48	"	" "	3,835 94
† 80—2094:	Elias L. Dalrymple, Franklin Township, Hunterdon Co.	247 48	"	" "	3,835 94

†Granted under Act prior to 1906.

*Deceased.

**Deceased before deficit to Fund was paid.

COMMISSIONER OF EDUCATION.

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Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.		Total Rec'd to June 30, 1919.
†† 81—2041:	Anna R. Johnson, Lumberton Township, Burlington Co.....	\$247 48	Jan.	1, 1904	\$1,017 12*
† 82—2493:	Mrs. Jennie Lunger, Clinton Town, Hunterdon Co.....	247 48	July	1, 1904	852 73
† 83—2251:	Mary E. Bergen, Cranbury Township, Middlesex Co.....	247 48	"	" "	779 84
† 84—1403:	Rachel D. Rowland, Trenton, Mercer Co.	257 40	"	" "	3,861 00
† 85—1375:	Sarah Gaston, Trenton, Mercer Co.	257 32	"	" "	1,023 91
† 86—1255:	Frances O. Crane, Elizabeth, Union Co.	284 64	"	" "	4,269 60
† 87—1647:	Mary J. Vall, Jersey City, Hudson Co.	351 64	"	" "	5,274 60
† 88—2057:	Mrs. Harriet M. Hall Ayres, Deerfield Township, Cumberland Co.	247 48	Oct.	1, 1904	3,650 33
† 89— 95:	Lue J. Mershon, Franklin Township, Gloucester Co.	247 48	"	" "	3,650 33
† 90—2071:	C. Josephine Sliker, Phillipsburg, Warren Co.	247 48	"	" "	3,650 33
† 91—2304:	Harriet P. Boyle, Bernards Township, Somerset Co.....	247 48	"	" "	3,650 33
† 92— 474:	Emma A. Issler, Newark, Essex Co.	351 44	Jan.	1, 1905	4,280 57
† 93— 675:	Mary E. Ward, Newark, Essex Co.	495 00	"	" "	7,177 50
† 94— 784:	Irene A. Brockway, West Hoboken, Hudson Co.....	353 40	"	" "	5,124 30
† 95— 582:	Lizzie M. Bingham, Newark, Essex Co.	410 84	Apr.	1, 1905	5,854 47
† 96—1144:	Metta Schuyler, Paterson, Passaic Co.	372 24	"	" "	3,879 42
† 97—2050:	Peter M. Mechling, Union Township, Hunterdon Co.	247 48	"	" "	21 69
† 98—1433:	Mrs. Kate S. Durrie, Jersey City, Hudson Co.	594 00	July	1, 1905	1,413 11
† 99—3333:	Mrs. Mary M. P. Fritz, Lebanon Township, Hunterdon Co.	247 48	"	" "	2,510 05
†100—2969:	Abraham Leach, Pequannock Township, Morris Co.....	247 48	"	" "	179 43
†101—2719:	Sarah Cullum, Jersey City, Hudson Co.	485 08	Oct.	1, 1905	6,669 85
†102— 56:	Olive M. Ewing, Long Branch, Monmouth Co.	396 00	July	1, 1905	5,544 00
†103—2310:	Sarah M. Cooke, Rockaway Township, Morris Co.....	247 48	"	" "	3,464 72
†104—2189:	R. Anna Baird, Bloomfield, Essex Co.	372 24	"	" "	1,225 08
†105— 865:	Mrs. Emma P. Stavers, Camden City, Camden Co.....	263 32	"	" "
†106—1204:	William J. Rogers, Paterson, Passaic Co.	594 00	"	" "	7,940 46
†107—2349:	Elizabeth L. Heward, New Brunswick, Middlesex Co.....	351 44	Oct.	1, 1905	4,286 85
†108—1946:	Emma L. Lefman, Hoboken, Hudson Co.	398 00	"	" "	1,431 15
†109—1049:	Agnes E. Pelsner, Paterson, Passaic Co.	495 00	"	" "	6,515 00
†110—3024:	Cunningham Harris, New Hanover Township, Burlington Co.	247 48	Jan.	1, 1906	3,340 98
†111— 103:	Sarah E. Ayars, Alloway Township, Salem Co.	247 48	"	" "	3,340 98
†112—1968:	Emily B. Fithian, Bridgeton, Cumberland Co.	247 48	"	" "	2,616 17
†113— 111:	Mrs. Anna A. Robbins, Upper Freehold Township, Monmouth Co.	247 48	Apr.	1, 1906	3,279 11
†114— 272:	Lizzie McCaughan, Glassboro Township, Gloucester Co.....	247 48	"	" "	3,279 11
†115—1953:	Charles H. Platts, Bridgeton, Cumberland Co.	495 00	"	" "	963 24
†116— 746:	Flora E. Smalley, Newark, Essex Co.	341 52	"	" "	4,525 14
†117—2703:	Mrs. Mary Louise Keating, Jersey City, Hudson Co.....	380 16	"	" "	497 86
†118—2581:	Jeremiah Fruttchey, North Bergen Township, Hudson Co.....	371 24	"	" "	1,057 63

*Deceased.

**Deceased before deficit to Fund was paid.

†Granted under Act prior to 1906.

***Deceased before annuity began to accrue.

‡Balance due estate of deceased annuitant.

Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1919.
†119—2163:	Rae A. Hinchman, East Greenwich Township, Gloucester Co.	\$247 48	July 1, 1906	\$3,217 24
†120— 67:	Annie Bradway, Pilesgrove Township, Salem Co.....	247 48	" " "	3,217 24
†121—1050:	Frances A. Gilbert, Paterson, Passaic Co.	445 48	" " "	5,791 24
†122— 425:	Eliza A. Brookfield, Newark, Essex Co.	383 60	" " "	4,986 80
†123— 902:	Jennie H. James, Camden City, Camden Co.	273 24	" " "	3,552 12
†124— 740:	Anna A. Baldwin, Newark, Essex Co.	321 76	" " "	3,410 20
†125— 115:	Augustus M. T. Flandreau, Farmingdale Borough, Monmouth Co.	318 76	" " "	4,143 88
††126— 166:	Lucinda I. Ellis, Salem City, Salem Co.	247 48	July 1, 1906	2,049 16*
†127—2028:	Mary V. L. Hageman, South Brunswick Township, Middlesex Co.	247 48	" " "	3,217 24
†128—3215:	Susan M. Stiles, Elizabeth, Union Co.	246 48	" " "	3,132 75
†129— 911:	Martha L. Gould Williams, (Mrs.) Orange, Essex Co.	321 76	Oct. 1, 1906	4,102 44
†130— 27:	Lizzie S. Van Kirk, Montgomery Township, Somerset Co.....	247 48	" " "	3,155 37
†131—1103:	Margaret E. Atkinson, Paterson, Passaic Co.	321 76	Jan. 1, 1907	4,022 00
†132—1061:	Mary Graham, Paterson, Passaic Co.	321 76	" " "	4,022 00
†133—3325:	Austin H. Lester, Montville Township, Morris Co.....	247 48	" " "	167 96
†134— 58:	Clara F. Hancock, Long Branch, Monmouth Co.	247 48	" " "	3,093 50
††135—1302:	Emma M. Bodine, Trenton, Mercer Co.	366 28	" " "	4,578 50
††136— 427:	Virginia R. Reeve, Newark, Essex Co.	351 44	" " "	4,393 00
†137—2576:	Mrs. Sophie M. Decker, Wantage Township, Sussex Co.....	247 48	" " "	3,093 50
††138—1932:	Catherine C. Attwell, Hoboken, Hudson Co.	433 60	" " "	4,763 28
†139— 467:	Lydia W. Hand, Newark, Essex Co.	366 28	" " "	1,281 96
††140—1502:	Edward Kelly, Jersey City, Hudson Co.	594 00	" " "	3,144 61
††141—1465:	Alice M. Bellows, Jersey City, Hudson Co.	403 92	" " "	1,370 44
††142— 770:	Annie E. Curtis, Newark, Essex Co.	363 84	" " "	4,548 00
†143— 554:	Frances V. Gould, Newark, Essex Co.	363 84	" " "	4,548 00
††144— 509:	Eliza H. Pierson, Newark, Essex Co.	363 84	" " "	1,353 52
††145—2200:	Mrs. Mary E. Ellinwood, Bloomfield, Essex Co.....	311 84	" " "	3,898 00
††146—2179:	Georgia K. Wright, Pennsauken Township, Camden Co.....	247 48	" " "	759 63
††147—1965:	Sara B. Wilson, Bridgeton, Cumberland Co.	247 48	" " "	777 50
††148— 639:	Fannie Steele, Newark, Essex Co.	420 76	" " "	2,803 54
††149—2005:	Ella L. Powell, Beverly City, Burlington Co.	247 48	" " "	2,738 55
††150— 638:	Susie Steele, Newark, Essex Co.	574 20	" " "	1,374 11
†151— 140:	Rachel F. Scarborough, Lambertville, Hunterdon Co.....	253 92	" " "	3,174 00
††152—1543:	Nellie M. Walsh, Jersey City, Hudson Co.....	356 40	" " "	4,455 00
††153— 827:	Clara A. Bamber, Camden City, Camden Co.	270 28	" " "	3,378 50
154—2093:	Mrs. Ella Hiner, Franklin Township, Hunterdon Co.....	250 00	June 14, 1907	3,010 96
155—1355:	Sarah R. Wallington, Trenton, Mercer Co.	352 80	" " "	4,249 12
†*156— 219:	Martha M. Putnam, Rahway, Union Co.	258 00	" " "	1,394 80*
157—1588:	Lizzie S. Ranken, Jersey City, Hudson Co.	633 60	" " "	124 90

*Deceased.

†Granted under Act prior to 1906.

††Granted under Act of 1906.

†*Balance due estate of deceased annuitant.

COMMISSIONER OF EDUCATION.

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Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1919.
153—123:	Alex P. Kerr, Lambertville, Hunterdon Co.	\$650 00	June 14, 1907	\$4,452 42
159—955:	M. Elizabeth Habberton, Orange, Essex Co.	606 00	" " "	7,311 16
†160—2528:	Amanda R. Dobbins, Northampton Township, Burlington Co....	247 48	July 1, 1907	1,707 78
161—2316:	Mary J. M. Murray, Atlantic City, Atlantic Co.....	319 20	June 14, 1907	1,459 08
162—2035:	Jesse G. Grier, Pleasantville Borough, Atlantic Co.....	302 40	" " "	3,642 08
163—598:	Eliza Murphy, Newark, Essex Co.	650 00	" " "	2,303 48
164—1810:	Louise Bailey, Hoboken, Hudson Co.	650 00	" " "	7,828 48
165—2090:	Isabella J. Stanger, Monroe Township, Gloucester Co.....	250 00	" " "	3,014 38
166—2795:	Mary Louise Vreeland, Newark, Essex Co.	564 00	" " "	4,846 61
167—2023:	Maggie B. Ditmars, Raritan Township, Hunterdon Co.....	250 00	" " "	3,010 96
168—306:	Mrs. Emma J. Ely, Camden City, Camden Co.	354 60	" " "	949 30
169—1467:	Kate Gregory, Jersey City, Hudson Co.	493 92	Sept. 20, 1907	5,817 06
170—1908:	Kate Bovingdon, Hoboken, Hudson Co.	538 56	Oct. 1, 1907	5,568 91
171—2166:	Georgiana Stevenson, East Orange, Essex Co.....	558 00	Sept. 20, 1907	6,571 80
172—1980:	Mary E. Foster, Bridgeton, Cumberland Co.	360 08	" " "	2,860 66
173—1971:	Hannah More Riley, Bridgeton, Cumberland Co.	250 00	" " "	2,944 40
174—4045:	Elizabeth M. Schuyler, Camden City, Camden Co.....	540 00	" " "	6,359 80
175—435:	Mrs. Catherine B. Cory, Newark, Essex Co.	606 00	" " "	7,137 10
176—422:	Mrs. M. Louisa Johnson, Newark, Essex Co.	458 40	" " "	5,398 80
177—410:	Mrs. Isadore M. Sherwood, Newark, Essex Co.....	650 00	" " "	7,655 30
178—697:	Harriet W. Mullison, Newark, Essex Co.	424 80	" " "	5,003 00
179—780:	Robert Waters, West Hoboken, Hudson Co.	650 00	Oct. 12, 1907	2,034 11
180—1290:	Lucretia H. Sayre, Elizabeth, Union Co.	600 00	" " "	7,031 20
181—1232:	Kate Houghtaling, Trenton, Mercer Co.	490 00	" " "	2,231 25
182—3678:	Mrs. Lydia M. Hendrickson, Middletown Township, Monmouth Co.	342 00	" " "	4,008 20
183—1923:	Mrs. Sarah M. Van Den Berg, Hoboken, Hudson Co.....	538 56	Nov. 1, 1907	6,235 20
184—200:	Ellen E. Niles, Plainfield, Union Co.	522 00	Dec. 13, 1907	5,606 84
185—270:	Mrs. Mary M. S. Latcham, Glassboro Township, Gloucester Co..	250 00	" " "	2,887 90
186—236:	Sarah E. Beam, Newark, Essex Co.	650 00	" " "	7,507 04
187—2109:	Mary A. Dougall, Newark, Essex Co.	650 00	" " "	7,507 04
188—2424:	Jennie B. Canfield, Newark, Essex Co.	537 00	" " "	6,201 96
189—767:	Margaret A. Bogan, Newark, Essex Co.	402 00	" " "	4,642 80
190—1154:	Eunice E. Mann, Paterson, Passaic Co.	576 00	" " "	4,458 90
†††191—755:	Harriet E. Ball, Newark, Essex Co.	321 76	Jan. 1, 1903	5,578 97
††192—1291:	Susan C. Martin, Elizabeth, Union Co.	391 04	Apr. 1, 1903	2,202 78
193—55:	Phebe A. Smalley, Long Branch, Monmouth Co.	396 00	Mar. 20, 1908	4,466 88
194—1805:	Eva L. Potts, Jersey City, Hudson Co.	455 52	" " "	800 59
195—906:	Henry Boyer, Camden City, Camden Co.	462 00	" " "	5,211 36
196—1318:	Olive Green, Trenton, Mercer Co.	396 00	" " "	4,326 81

*Deceased.

†Granted under Act prior to 1906.

††Granted under Act of 1906.

†††Miss Ball's annuity, No. 191, was in litigation several years; was granted March 20, 1908; by order of Court began to accrue January 1, 1902, with interest at 6 per cent.

Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1919.
197—2032:	Heman Allen Leach, Sparta Township, Sussex Co.....	\$259 48	Mar. 20, 1908	\$2,927 36
198— 521:	Sarah N. Branum, Newark, Essex Co.	608 40	" " "	529 39
199—1066:	Mrs. Lucinda Fleming, Paterson, Passaic Co.	354 00	Apr. 16, 1908	1,157 84
†200—1811:	Mrs. Elmira V. Christie, Hoboken, Hudson Co.....	455 00	July 1, 1908	119 66
†201—2885:	Edward J. Bell, Vernon Township, Sussex Co.....	247 48	" " "	2,722 28
202— 415:	Katherine Cottrell, Newark, Essex Co.	451 20	June 12, 1908	4,985 52
203— 87:	Peter Tilton, Ocean County, Superintendent	650 00	" " "	7,181 50
204—2006:	Anna Margaret Morton, Beverly City, Burlington Co.....	270 00	Oct. 16, 1908	1,203 74
205— 847:	George E. Fry, Audubon Borough, Camden Co.	480 00	" " "	5,139 94
206—2284:	Silas C. Smith, Millville, Cumberland Co.....	552 00	" " "	390 76
207—2174:	Mary D. Baldwin, East Orange, Essex Co.	471 00	" " "	5,042 54
208— 932:	Eva A. Joyce, Orange, Essex Co.	372 00	" " "	3,983 52
209— 573:	Sarah A. Avery, Newark, Essex Co.	453 60	" " "	4,857 04
210— 724:	Elizabeth H. Belcher, Newark, Essex Co.	650 00	" " "	6,960 28
211— 635:	Emma Finter, Newark, Essex Co.	607 80	" " "	6,508 44
212— 556:	Gertrude E. Ryer, Newark, Essex Co.	435 00	" " "	4,657 94
213— 640:	Edwin Shepard, Newark, Essex Co.	650 00	" " "	6,960 28
214— 928:	Laura M. Reed, Orange, Essex Co.	650 00	" " "	6,960 28
215—1464:	Mrs. Anna A. Brown, Jersey City, Hudson Co.	650 00	" " "	4,413 68
216—2347:	Sarah Hoagland, New Brunswick, Middlesex Co.....	441 00	" " "	27 78
217—2253:	Alice L. Norris, Boonton Town, Morris Co.	393 00	" " "	3,414 28
218—1073:	Louisa E. Vanderbeek, Paterson, Passaic Co.	548 40	" " "	5,872 29
219— 186:	Mrs. Sarah S. Higgins, North Plainfield Township, Somerset Co.	267 00	" " "	2,858 98
220—2336:	Mrs. Rilla J. Brink Beach, Sandyston Township, Sussex Co...	250 00	" " "	2,677 06
221— 193:	Lydia Haviland White, Roselle Park Borough, Union Co.	375 00	" " "	4,015 78
222—1447:	Mary A. Anness, Jersey City, Hudson Co.	650 00	Dec. 11, 1908	6,860 60
223—2608:	Nancy Jane Cone, Springfield Township, Burlington Co.....	252 00	" " "	2,659 80
224— 156:	William N. Bortle, Cedar Grove Borough, Essex Co.....	498 00	" " "	1,590 72
225—1119:	Anna E. Vreeland, Paterson, Passaic Co.	496 48	" " "	5,239 84
226—1419:	Thomas M. White, Trenton, Mercer Co.	650 00	" " "	6,633 50
227—1883:	Letitia E. Robinson, Hoboken, Hudson Co.	650 00	Apr. 2, 1909	6,660 72
228—2783:	Louisa Howell, Ewing Township, Mercer Co.	305 16	" " "	954 05
229— 351:	Charles P. DuBols, Fort Lee Borough, Bergen Co.....	600 00	" " "	3,982 15
230—1887:	Mary L. Lawler, Hoboken, Hudson Co.	580 32	" " "	5,946 69
231—2061:	Mary Louise Mack, Phillipsburg, Warren Co.	492 00	" " "	1,664 17
232—1997:	Rose A. Stewart, Bordentown, Burlington Co.	330 00	" " "	3,381 60
233— 921:	Mary Alice Matthews, Orange, Essex Co.	381 00	" " "	3,902 56
234—3339:	Ina G. Aiken, Landis Township, Cumberland Co.	265 20	" " "	2,717 57
†235—1910:	Maria T. Hedges, Hoboken, Hudson Co.	493 00	July 1, 1909	4,930 00
236—2418:	Ida J. Bush, Newark, Essex Co..	491 04	June 11, 1909	4,936 06
237— 123:	Emma L. Babbitt, Morristown, Morris Co.	540 00	Sept. 17, 1909	5,284 11

*Deceased.

**Deceased before deficit to Fund was paid

†Granted under Act prior to 1906.

COMMISSIONER OF EDUCATION.

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Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1919.
228—171:	Anna F. Fogg, Salem City, Salem Co.	\$303 00	Sept. 17, 1909	\$2,965 04
239—214:	Mary M. Tomlin, Merchantville Borough, Camden Co.....	402 00	" " "	3,933 80
240—417:	M. Lizzie Kerns, Newark, Essex Co.	553 20	" " "	5,413 72
241—670:	Flora I. Glover, Newark, Essex Co.	465 60	" " "	4,555 55
242—716:	Laura B. Sayre, Newark, Essex Co.	639 60	" " "	6,258 85
243—744:	Emma L. Hutchings, Newark, Essex Co.	650 00	" " "	6,360 64
244—1051:	Isabella Scott, Paterson, Passaic Co.	650 00	" " "	6,360 64
245—1052:	Anna F. M. Thorp, Paterson, Passaic Co.	650 00	" " "	2,716 75
246—1064:	Jennie H. Berdan, Paterson, Passaic Co.	480 00	" " "	4,697 03
247—1058:	Mary Chiswell, Paterson, Passaic Co.	486 00	" " "	4,755 79
248—1122:	Elizabeth S. Eakins, Paterson, Passaic Co.	649 20	" " "	6,352 84
249—1141:	Hattie Franklin, Paterson, Passaic Co.	402 00	" " "	3,933 80
250—1164:	Martha Hollingsworth, Paterson, Passaic Co.	410 40	" " "	2,032 65
251—1468:	Daisy L. Kennedy, Jersey City, Hudson Co.	650 00	" " "	6,360 64
252—1469:	Emeline Hyatt, Jersey City, Hudson Co.	573 12	" " "	5,608 33
253—1492:	Georgia F. Mount, Jersey City, Hudson Co.	650 00	" " "	6,360 64
254—1905:	Marie C. Gourlie, Hoboken, Hudson Co.	650 00	" " "	3,476 58
255—1926:	Marie Howard Vose, Hoboken, Hudson Co.	580 32	" " "	5,678 79
256—1970:	Mary A. Walker, Bridgeton, Cumberland Co.	372 00	" " "	3,640 00
257—2068:	Emmel Lommasson, Phillipsburg, Warren Co.	384 00	" " "	796 25
258—2069:	Helen Gallagher, Phillipsburg, Warren Co.	384 00	Sept. 17, 1909	3,757 65
259—2085:	Mary Caffrey, Phillipsburg, Warren Co.	384 00	" " "	3,757 65
260—2117:	Mrs. Alice P. Nichols, Woodbridge, Bergen Co.	366 00	" " "	3,581 50
261—2229:	Annie E. Prichard, Commercial Township, Cumberland Co.....	250 00	" " "	2,446 34
262—2348:	Mrs. Sara Johnson Price, New Brunswick, Middlesex Co.....	462 00	" " "	3,473 41
263—3042:	Melina A. Bosworth, State Normal and Model Schools.....	650 00	" " "	6,360 64
264—3668:	Emma Reed, Galloway Township, Atlantic Co.	313 20	" " "	3,064 75
265—3669:	Mary Berdilla Lindsay, Atlantic City, Atlantic Co.....	349 80	" " "	3,422 90
266—910:	Mary Ella Swan, Orange, Essex Co.	582 00	Dec. 10, 1909	1,668 63
267—144:	Fanny V. Surgent, West New York, Hudson Co.....	429 76	" " "	3,447 22
268—2593:	Mrs. Lovie Blackman, Plumsted Township, Ocean Co.	250 00	" " "	2,389 38
††269—138:	Mary N. Purcell, Lambertville, Hunterdon Co.	297 60	" " "	2,277 75
270—3237:	Annette Hanna, Trenton, Mercer Co.	400 32	" " "	3,826 14
271—1322:	Ida Herbert, Trenton, Mercer Co.	360 00	" " "	43 39
272—857:	Elizabeth Anderson, Camden City, Camden Co.....	648 00	" " "	4,832 80
273—1578:	Emily L. Miegel, Jersey City, Hudson Co.	650 00	" " "	6,212 38
274—3323:	Emma Conover, Franklin Township, Somerset Co.....	250 00	" " "	2,389 38
275—2465:	Annie M. L. Eagles, Newark, Essex Co.	457 20	" " "	4,369 65
276—737:	Mrs. Fannie W. Smith, Newark, Essex Co.	650 00	" " "	6,212 38
277—730:	M. Augusta Sweasy, Newark, Essex Co.	650 00	" " "	6,212 38

*Deceased.

**Deceased before deficit to Fund was paid.

††No. 269 resumed teaching Nov. 5, 1917, and payment of her annuity was suspended.

Annulty and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annulty.	Annulty Began to Accrue.	Total Rec'd to June 30, 1919.
278—548:	Sarah G. Taylor, Newark, Essex Co.	\$650 00	Dec 10, 1909	\$1,390 48
279—734:	Margaret G. Baird, Newark, Essex Co.	571 20	" " "	5,459 16
280—914:	Margaret Hamilton McCullough, Orange, Essex Co.	406 80	" " "	3,887 91
281—2110:	Esther M. Lull, Waterford Township, Camden Co.	250 00	" " "	2,389 38
282—5872:	Samuel Wilson, Hope Township, Warren Co.	250 00	" " "	2,389 38
283—172:	Ida H. Kirby, Salem City, Salem Co.	270 00	" " "	2,319 93
284—2453:	Laura B. Conrow, Long Branch, Monmouth Co.	393 00	" " "	3,756 18
285—1888:	Jean Livingston, Hoboken, Hudson Co.	580 82	" " "	1,540 28
286—232:	A. H. Skinner, Randolph Township, Morris Co.	287 40	" " "	1,398 26
287—350:	James A. Coe, Wood Ridge, Bergen Co.	600 00	" " "	5,735 50
288—4766:	Anna L. Holcomb, North Plainfield Borough, Somerset Co.	426 00	" " "	2,442 25
289—2446:	Mrs. Annie R. Noltemeyer, Passaic City, Passaic Co.	490 00	Mar. 18, 1910	4,457 33
290—1089:	Maria Sipp, Paterson, Passaic Co.	553 80	" " "	5,142 64
291—1075:	Mary L. Warren, Paterson, Passaic Co.	508 20	" " "	3,448 70
292—2923:	Mary Louisa Brokaw, Rahway, Union Co.	250 00	" " "	2,321 53
293—2022:	Eleanor Compton, Millstone Borough, Somerset Co.	258 60	" " "	2,401 39
294—2014:	Augusta E. Wood, Mountainside Borough, Union Co.	324 00	" " "	3,008 70
295—5968:	Martha L. Webb, Newark, Essex Co.	451 08	" " "	4,188 78
296—647:	Mary Miranda Parker, Newark, Essex Co.	459 36	" " "	1,916 93
297—2532:	Celia H. Bluste, Northampton Township, Burlington Co.	250 00	" " "	2,321 53
298—4201:	Thomas Romans, Manchester Township, Ocean Co.	250 00	" " "	2,321 53
299—3492:	George A. Atwater, Bayonne, Hudson Co.	650 00	" " "	6,035 97
300—1034:	Ebenezer C. Earl, Bayonne, Hudson Co.	650 00	" " "	6,035 97
301—6754:	Peter Garabrant, Mendham Borough, Morris Co.	402 00	" " "	2,968 47
302—2012:	Franklin A. Stryker, Bridgewater Township, Somerset Co.	336 00	" " "	3,120 13
303—1000:	Philip G. Vroom, Bayonne, Hudson Co.	650 00	" " "	1,019 65
304—1338:	Mrs. Melvina Mitchell, Trenton, Mercer Co.	556 80	" " "	2,933 73
305—2113:	Harriet Katherine Ayres, Rockaway Township, Morris Co.	255 00	June 10, 1910	2,309 01
306—3304:	Anna D. Clark, Long Branch, Monmouth Co.	418 20	" " "	3,778 74
307—329:	Frances Julia Warner, Summit, Union Co.	588 00	" " "	5,324 00
308—1386:	Mary V. Keller, Trenton, Mercer Co.	393 16	" " "	3,560 04
309—3977:	Hanna F. Dilks, Lawrence Township, Cumberland Co.	250 00	" " "	2,263 74
310—2873:	Kate McLaughlin, New Brunswick, Middlesex Co.	562 20	July 1, 1910	5,069 80
311—2582:	Frances M. Cosine, Wallington Borough, Bergen Co.	288 00	Sept. 23, 1910	2,525 58
312—3283:	Mrs. Mary J. Mitchell, Beverly Township, Burlington Co.	264 00	" " "	2,315 02
313—3528:	Anna Farrell, Camden City, Camden Co.	650 00	" " "	5,699 86
314—886:	Edith G. Heaney, Camden City, Camden Co.	540 00	" " "	4,735 27
315—848:	Florence Hughes, Camden City, Camden Co.	650 00	" " "	5,699 86
316—859:	Isabella Mayberry, Camden City, Camden Co.	396 00	" " "	3,472 53
317—4212:	Lillie H. Spence, Bridgeton, Cumberland Co.	279 00	" " "	2,446 56
318—1964:	Rie M. Whitaker, Bridgeton, Cumberland Co.	408 00	" " "	3,577 76

*Deceased.

COMMISSIONER OF EDUCATION.

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Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1913.
319— 35:	Mary H. Davis, Hopewell Township, Cumberland Co.	\$250 00	Sept. 23, 1910	\$2,192 26
320—2929:	Margaret Anna Lutz, Newark, Essex Co.	536 40	" " "	4,703 70
321— 681:	Mary A. O'Rourke, Newark, Essex Co.	468 96	" " "	1,603 77
322— 641:	Kate Roche, Newark, Essex Co.	537 84	" " "	4,730 81
323— 292:	Nellie A. Wilkes, Montclair, Essex Co.	468 00	" " "	4,103 90
324—1448:	Judith Hollis Holden, Jersey City, Hudson Co.	614 16	" " "	5,385 53
325—1719:	Margaret Rowlands, Jersey City, Hudson Co.	650 00	" " "	5,699 86
326—1547:	Isabella A. Scott, Jersey City, Hudson Co.	581 76	" " "	5,101 47
327—2306:	Andrew Lincoln Lyon, Manalapan Township, Monmouth Co.	250 00	" " "	2,192 26
328—2223:	Samuel D. Wiseman, Ocean Township, Monmouth Co.	402 00	" " "	2,530 08
329—5686:	Roxie B. Southard, Upper Freehold Township, Monmouth Co.	252 00	" " "	908 87
330— 154:	Irene Thompson, Wall Township, Monmouth Co.	335 20	" " "	3,377 83
331—4304:	Mrs. Eliza Caroline Saunders, Mt. Olive Township, Morris Co.	250 00	" " "	2,192 26
332—2217:	Mrs. Anna C. King, Dover Town, Morris Co.	309 00	" " "	573 49
333—2161:	Anson B. Cope, Stanhope Borough, Sussex Co.	650 00	" " "	2,323 64
334—5219:	Everitt L. Layton, Vernon Township, Sussex Co.	310 20	" " "	2,720 15
335—2441:	Annie E. Covell, Elizabeth, Union Co.	424 20	" " "	2,137 20
336— 378:	Sarah Deeths, Acquackanonk Township, Passaic Co.	399 96	Dec. 20, 1910	3,411 62
337—1074:	Mary Worden, Paterson, Passaic Co.	555 00	" " "	4,734 09
338—4324:	Charlotte S. Loag, Manasquan Borough, Monmouth Co.	328 40	" " "	2,784 16
339—1530:	Sarah K. Peck, Jersey City, Hudson Co.	588 24	" " "	925 51
340—1795:	Elizabeth A. Vernon, Jersey City, Hudson Co.	650 00	" " "	1,252 31
341—1529:	Emma V. Talson, Jersey City, Hudson Co.	650 00	" " "	449 63
342— 459:	Mrs. Georgia Beers Crater, Newark, Essex Co.	650 00	" " "	5,544 43
343—4700:	Theodorus B. Hascall, Newark, Essex Co.	650 00	" " "	5,544 43
344—2765:	Marian G. Brown, Princeton Borough, Mercer Co.	306 00	" " "	2,610 15
345— 93:	B. F. Mathews, Lacey Township, Ocean Co.	270 00	" " "	1,653 20
346— 176:	Charles J. Majory, Rutherford Borough, Bergen Co.	650 00	Apr. 1, 1911	5,362 50
347—1989:	Maude S. Eckhardt, Pitman Borough, Gloucester Co.	300 00	" " "	2,266 42
348—1813:	Adelaide Diana Sherwood, Hoboken, Hudson Co.	650 00	" " "	4,640 78
349— 413:	Elizabeth W. Dougall, Newark, Essex Co.	650 00	" " "	5,362 50
350— 733:	Rebecca McClure, Newark, Essex Co.	650 00	" " "	2,969 50
351— 764:	Hattie Thompson, Newark, Essex Co.	556 20	" " "	56 53
352—1079:	Mrs. Margaret Marinus, Paterson, Passaic Co.	477 60	" " "	3,940 20
353— 192:	Esther Maria Shilton, Roselle Park Borough, Union Co.	337 00	" " "	3,192 75
354—2196:	Mary M. Draper, Bloomfield, Essex Co.	608 40	June 9, 1911	4,902 30
355—2274:	Hannah D. Brandriff, Millville, Cumberland Co.	325 20	" " "	2,620 36
356— 949:	Fannie E. Coeyman, Orange, Essex Co.	446 40	" " "	3,596 95
357—1889:	Georgina Kellett, Hoboken, Hudson Co.	635 04	" " "	5,116 96
358—3494:	Cherrie B. Thomas, Kearny, Hudson Co.	439 00	" " "	591 62
359—2302:	William W. Case, Franklin Township, Hunterdon Co.	250 00	" " "	2,014 42

*Deceased.

SCHOOL REPORT.

Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1919.
360—6861:	Nathan W. Pease, Elizabeth, Union Co.	\$650 00	June 9, 1911	\$5,237 50
361—129:	Julia Merrick, Roselle Borough, Union Co.	360 00	" " "	2,900 70
362—2129:	Maggie Vreeland, Ridge Wood Township, Bergen Co.	513 00	Sept. 15, 1911	3,996 06
363—1992:	Eliza Bloomsburg, Bordentown City, Burlington Co.	315 72	" " "	2,459 98
364—8:	Luther Corson, Medford Township, Burlington Co.	650 00	" " "	5,063 99
365—850:	Hannah C. Dungan, Camden City, Camden Co.	398 49	" " "	3,103 84
366—855:	Carrie C. Messler, Camden City, Camden Co.	394 80	" " "	3,075 79
367—871:	Maria Habliston, Camden City, Camden Co.	389 76	" " "	3,036 64
368—899:	Mary Emma Young, Camden City, Camden Co.	564 00	" " "	4,393 98
369—2365:	Harriet A. Evans, Millville, Cumberland Co.	250 00	" " "	1,947 09
370—4678:	Mary Josephine Goffe, Montclair, Essex Co.	624 00	" " "	4,861 47
371—512:	Cornelia L. Alyea, Newark, Essex Co.	546 24	" " "	4,255 62
372—2234:	Mary Louisa Karner, Newark, Essex Co.	513 16	" " "	4,036 86
372—2426:	Mrs. M. Augusta Gillott, Newark, Essex Co.	650 00	" " "	5,063 99
374—1430:	Mrs. Caroline Cave Shepard, Jersey City, Hudson Co.	650 00	" " "	3,631 75
375—1551:	Mrs. Luise H. Stanley, Jersey City, Hudson Co.	650 00	" " "	5,063 99
376—1612:	Marguerita De Vanny, Jersey City, Hudson Co.	641 52	" " "	4,590 57
377—1748:	Anna M. Dalton, Jersey City, Hudson Co.	650 00	" " "	3,803 15
378—2355:	Mary Elizabeth Wakeman, New Brunswick, Middlesex Co.	336 00	" " "	2,613 00
379—128:	Emma Gray, Morristown, Morris Co.	459 00	" " "	3,576 37
380—9641:	Amelia H. Hanthorn, Weymouth Township, Atlantic Co.	253 30	Dec. 8, 1911	1,227 67
381—1186:	Annie M. Broome, Paterson, Passaic Co.	516 76	" " "	3,907 99
382—2457:	L. May Williams, Camden City, Camden Co.	394 72	" " "	2,909 44
383—5332:	George Eldredge, Dennis Township, Cape May Co.	286 20	" " "	2,164 38
384—421:	Marian D. Camden, Newark, Essex Co.	650 00	" " "	4,915 62
385—2926:	Eva Myer, Newark, Essex Co.	646 80	" " "	4,891 42
386—1450:	Jennie M. Levy, Jersey City, Hudson Co.	648 00	" " "	4,900 50
387—783:	Emma Neafie, West Hoboken, Hudson Co.	610 08	" " "	4,613 73
388—1344:	Sarah E. Poland, Trenton, Mercer Co.	546 00	" " "	3,633 95
389—2143:	Laura M. Pyott, Wall Township, Monmouth Co.	253 30	" " "	1,919 36
390—6671:	Mrs. Minerva Decker Harvey, Irvington, Essex Co.	534 00	" " "	4,038 37
391—2534:	Nettie D. Bayles, Hardyston Township, Sussex Co.	301 20	" " "	2,277 82
392—3563:	C. Alberta Underwood, Atlantic City, Atlantic Co.	553 00	" " "	4,070 02
393—1967:	Sara M. Westcott, Bridgeton, Cumberland Co.	351 00	" " "	2,560 12
394—431:	Harriet K. Jenkinson, Newark, Essex Co.	494 04	" " "	3,603 50
395—506:	Margaret D. Conover, Newark, Essex Co.	546 24	" " "	1,140 43
396—537:	Lydia A. Mills, Newark, Essex Co.	546 24	" " "	3,984 25
397—558:	Anna M. Howard, Newark, Essex Co.	572 64	" " "	1,215 82
398—668:	Sarah B. Scarlett, Newark, Essex Co.	650 00	" " "	4,741 07
399—1493:	Lillie M. Hyatt, Jersey City, Hudson Co.	650 00	" " "	4,741 07
400—1794:	Jane M. Lewis, Jersey City, Hudson Co.	650 00	" " "	4,741 07

*Deceased.

COMMISSIONER OF EDUCATION.

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Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1912.
401-135:	Belle Gallagher, Lambertville, Hunterdon Co.	\$354 00	Dec. 8, 1911	\$2,532 06
402-1153:	Mary Elizabeth Bentley, Paterson, Passaic Co.	540 00	" " "	3,933 73
403-4269:	Mrs. Olive H. Donnell, Paterson, Passaic Co.	361 80	" " "	2,633 95
404-2611:	Robert Carter Godfrey, Salem City, Salem Co.	353 20	" " "	2,510 87
405-3028:	Sarah De M. Runyon, Bernards Township, Somerset Co.	250 00	" " "	1,823 48
†406-3502:	John Broderick, West Milford Township, Passaic Co.	247 43	Apr. 1, 1912	1,043 90*
407-2027:	Mary J. McCurdy, Holland Township, Hunterdon Co.	250 00	Mar. 15, 1912	1,823 48
408-5339:	Minnie Scott Blakie, Mansfield Township, Burlington Co.	270 00	June 14, 1912	1,021 89
409-2366:	Mrs. Dora Tuller, Millville, Cumberland Co.	250 00	" " "	1,578 26
410-515:	Cornelia S. Coe, Newark, Essex Co.	599 04	" " "	4,219 53
411-6029:	Hannah Moore, Newark, Essex Co.	650 00	" " "	4,578 57
412-3543:	Elizabeth Ricalton, South Orange Township, Essex Co.	491 16	" " "	3,459 70
413-11472:	Anna M. Hennessy, Town of Union, Hudson Co.	396 00	" " "	2,789 40
414-57:	Esther C. Todd, Long Branch, Monmouth Co.	615 00	" " "	4,322 03
415-2443:	Sara E. Nivison, Shrewsbury Township, Monmouth Co.	390 00	" " "	2,747 14
416-907:	Agnes Riley, Camden City, Camden Co.	522 00	Sept. 20, 1912	3,537 63
417-3463:	Charles K. Middleton, Camden City, Camden Co.	650 00	" " "	4,405 16
418-2315:	Mrs. Ella S. B. Dodge, Commercial Township, Cumberland Co.	250 00	" " "	1,694 29
419-6951:	Mrs. Lura Del Mayhew, Commercial Township, Cumberland Co.	250 00	" " "	1,694 29
420-1962:	Ida Virginia Fitz Randolph, Bridgeton, Cumberland Co.	265 20	" " "	1,797 30
†421-36:	Julia M. Davis, Stow Creek Township, Cumberland Co.	247 43	Oct. 1, 1912	1,670 49
422-3503:	M. Helen DuBois, East Orange, Essex Co.	510 00	Sept. 20, 1912	3,456 25
423-6965:	Randall Spaulding, Montclair, Essex Co.	650 00	" " "	2,680 33
424-443:	Mrs. Addie Beers Whittemore, Newark, Essex Co.	617 04	" " "	4,181 92
425-511:	Henry S. Anderson, Newark, Essex Co.	650 00	" " "	4,405 16
426-753:	Elizabeth Moore, Newark, Essex Co.	523 00	" " "	3,573 34
427-722:	Jessie B. Mikels, Newark, Essex Co.	650 00	" " "	1,994 33
428-2932:	Mary A. McNeill, Newark, Essex Co.	579 84	" " "	3,929 80
429-1835:	Mary Edith Lawler, Hoboken, Hudson Co.	650 00	" " "	4,002 62
430-1918:	Mrs. Alice S. Mills, Hoboken, Hudson Co.	650 00	" " "	4,405 16
431-1425:	Cornelia M. Wigent, Jersey City, Hudson Co.	650 00	" " "	4,405 16
432-141:	Mrs. Clara Miller, Lambertville, Hunterdon Co.	357 60	" " "	2,423 40
422-7478:	Mrs. Edna A. Davis Van Pelt, Hopewell Township, Mercer Co.	294 00	" " "	1,992 49
†434-3339:	Martha E. Lewis, Trenton, Mercer Co.	491 52	Oct. 1, 1912	2,710 36
435-3305:	Lulu E. Clark, Long Branch, Monmouth Co.	441 60	Sept. 20, 1912	2,992 80
426-2214:	Thomas H. Mahany, Netcong Borough, Morris Co.	564 00	" " "	3,822 32
437-1054:	Mary E. Berger, Paterson, Passaic Co.	636 00	" " "	4,310 28
423-1065:	Sarah Johnston Van Wyck, Paterson, Passaic Co.	510 00	" " "	3,456 25
439-359:	Joel Horton, North Bergen Township, Bergen Co.	650 00	Oct. 18, 1912	2,102 06
440-2263:	Priscilla Heckner, Rutherford Borough, Bergen Co.	442 20	Nov. 8, 1912	32 10

*Deceased.

†Granted under Act prior to 1906.

Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.		Total Rec'd to June 30, 1919.
441— 6:	Sarah E. Wilson, Voorhees Township, Camden Co.	\$351 00	Dec.	20, 1912	\$2,291 99
442— 450:	Jane E. Allen, Newark, Essex Co.	650 00	"	" "	4,244 42
442— 577:	Ann Eliza Sayre, Newark, Essex Co.	650 00	"	" "	4,244 42
444— 762:	S. Eveline Durand, Newark, Essex Co.	617 04	"	" "	4,029 20
445— 930:	Ida M. Quinby, Orange, Essex Co.	445 20	"	" "	2,907 10
446— 1546:	Mary E. Benton, Jersey City, Hudson Co.	650 00	"	" "	4,244 42
447— 786:	Mame E. Yates, West Hoboken, Hudson Co.	650 00	"	" "	4,244 42
448— 3336:	Chrissie Bunn, Union Township, Hunterdon Co.	259 20	"	" "	1,692 54
449— 1347:	Ella Schermerhorn, Trenton, Mercer Co.	650 00	"	" "	4,244 42
450— 9751:	Elizabeth Merrick, Trenton, Mercer Co.	415 20	"	" "	2,711 21
451— 3668:	Clara E. Ball, Hanover Township, Morris Co.	307 20	"	" "	2,005 98
452— 5191:	Joseph R. Steelman, Stafford Township, Ocean Co.	422 00	"	" "	2,320 91
†††452— 2042:	Richard Martin Creed, Woodland Township, Burlington Co.	247 42	Oct.	1, 1903	3,650 23
454— 5509:	Kathryn Jay, Atlantic City, Atlantic Co.	441 60	Apr.	4, 1913	2,755 10
455— 2148:	S. Fanny Haines, Medford Township, Burlington Co.	263 64	"	" "	1,553 77
456— 2899:	George E. Megargee, Chester Township, Burlington Co.	650 00	"	" "	2,644 47
457— 845:	Frances J. Messler, Camden City, Camden Co.	421 92	"	" "	2,632 36
458— 526:	David Maclure, Newark, Essex Co.	650 00	"	" "	4,055 35
†459— 532:	Emma J. Smith, Newark, Essex Co.	594 00	July	1, 1912	3,564 00
460— 771:	Juliet Dettmer, Newark, Essex Co.	624 96	Apr.	4, 1913	3,899 13
461— 1753:	Agnes Warwick, Jersey City, Hudson Co.	650 00	"	" "	4,055 35
462— 2307:	Anna H. Park, Tewksbury Township, Hunterdon Co.	250 00	"	" "	1,559 75
463— 1047:	Mrs. Caroline E. Thomas, Paterson, Passaic Co.	601 96	"	" "	2,533 14
464— 1118:	Anna B. Poole, Paterson, Passaic Co.	574 20	"	" "	3,582 44
465— 1172:	William H. Barry, Paterson, Passaic Co.	650 00	"	" "	4,055 35
466— 195:	Louise B. Runyon, Plainfield, Union Co.	459 00	"	" "	2,863 70
467— 3544:	Jeremiah D. Gray, Lopatcong Township, Warren Co.	378 00	"	" "	2,353 34
468— 3651:	Hon. Charles J. Baxter, former State Superintendent of Public Instruction	650 00	June	13, 1913	1,655 35
469— 399:	Sara E. Merry, Newark, Essex Co.	629 64	"	" "	3,807 24
470— 1812:	Laura Herbert, Hoboken, Hudson Co.	650 00	"	" "	3,930 35
471— 1945:	Clara V. Havens, Hoboken, Hudson Co.	650 00	"	" "	1,014 25
472— 1599:	Hannah E. Eltringham, Jersey City, Hudson Co.	650 00	"	" "	3,930 35
473— 2674:	William B. Du Rie, Jersey City, Hudson Co.	650 00	"	" "	1,683 83
474— 1264:	Sallie Callis, Trenton, Mercer Co.	504 00	"	" "	3,047 53
475— 1269:	Harriet S. Dickinson, Trenton, Mercer Co.	578 40	"	" "	3,497 41
476— 1387:	Joanna M. Krumholz, Trenton, Mercer Co.	486 72	"	" "	2,943 05
477— 1421:	Lewis C. Wooley, Trenton, Mercer Co.	650 00	"	" "	1,251 51
†478— 3324:	Anne Shotwell, Linden Township, Union Co.	321 72	July	1, 1913	1,930 32

*Deceased.

†Granted under Act prior to 1906.

†††Mr. Creed's annuity, No. 453, was granted February 21, 1913, but dates from October 1, 1903, without interest. Mr. Creed had made application prior to October 1, 1903; his application was laid on the table; in 1913 the Board, after careful investigation, decided that Mr. Creed was permanently incapacitated when he applied prior to October 1, 1903, and, therefore, granted annuity to accrue from that date.

COMMISSIONER OF EDUCATION.

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Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1919.
479-2152:	Mrs. Mary A. Heisler, Burlington City, Burlington Co.....	\$288 00	Sept. 26, 1913	\$1,659 12
480-2153:	Annie Lockhart Phillips, Florence Township, Burlington Co.	300 00	" " "	1,490 53
481-352:	Bessie Laverty, Camden City, Camden Co.	450 00	" " "	2,592 39
482-330:	Clara E. McCully, Camden City, Camden Co.	650 00	" " "	3,744 56
483-994:	Alice C. Wentz, Camden City, Camden Co.	462 00	" " "	2,661 52
484-2449:	Mary Updyke Davis, Camden, City, Camden Co.....	456 00	" " "	2,626 95
485-2769:	Harriet A. LaPierre, Camden City, Camden Co.....	650 00	" " "	3,744 56
486-2825:	Susanna Woolman, Camden City, Camden Co.	454 80	" " "	2,620 04
487-3118:	Elizabeth Van Kirk, Camden City, Camden Co.....	504 00	" " "	2,903 47
488-3249:	Lizzie H. Kaighn, Camden City, Camden Co.	462 00	" " "	564 42
489-5614:	Mary Weir Davis, Hopewell Township, Cumberland Co.....	275 40	" " "	1,586 53
490-4351:	Fannie D. Brineshults, Lawrence Township, Cumberland Co.....	276 60	" " "	1,593 45
491-7327:	Mrs. Ann Eliza Cattell Maskell, Maurice River Township, Cumberland Co.	250 00	" " "	9 59
492-2282:	Sallie Mulford, Millville, Cumberland Co.	354 00	" " "	2,039 34
493-453:	Annie C. Day, Newark, Essex Co.	650 00	" " "	3,744 56
494-6004:	Mrs. Chloe L. Day Smith, Newark, Essex Co.....	650 00	" " "	3,744 56
495-1488:	Mrs. Annie L. Bubier, Jersey City, Hudson Co.....	650 00	" " "	3,744 56
496-1734:	Miss A. Frank C. Smith, Jersey City, Hudson Co.....	650 00	" " "	3,744 56
497-1766:	Mrs. Kate E. Foster, Jersey City, Hudson Co.....	650 00	" " "	3,744 56
498-3646:	Emma M. Bolling, Jersey City, Hudson Co.	650 00	" " "	3,744 56
499-15:	Cornelia V. Stonaker, Princeton Borough, Mercer Co.....	512 40	" " "	2,951 86
†500-1226:	Spencer P. Irvin, Trenton, Mercer Co.	594 00	Oct. 1, 1913	3,415 50
501-1399:	Mrs. Rebecca C. R. O'Hara, Trenton, Mercer Co.....	504 00	Sept. 26, 1913	2,903 47
502-3475:	Mary E. Coffin, Asbury Park, Monmouth Co.	650 00	" " "	1,233 56
503-107:	Sarah R. Everett, Eatontown Township, Monmouth Co.....	323 00	" " "	1,918 36
504-2029:	Martha Kase, Mt. Olive Township, Morris Co.....	300 00	" " "	1,728 26
505-1121:	Margaret A. Wright, Paterson, Passaic Co.	540 00	" " "	2,064 38
506-2085:	Daniel A. Gormley, Lafayette Township, Sussex Co.....	250 00	" " "	1,440 21
507-4307:	Bethuel Farrand Holly, Frankford Township, Sussex Co.....	277 80	" " "	1,600 37
508-1294:	Bertha C. Mackey, Elizabeth, Union Co.	600 00	" " "	3,456 52
509-2543:	Margaret A. Clark, Elizabeth, Union Co.	462 00	" " "	844 36
510-3041:	Sarah Y. Ely, State Model School, Trenton	650 00	" " "	3,744 56
511-3045:	Louise Struble, State Model School, Trenton	528 00	" " "	3,041 73
512-5836:	Vernon L. Davey, East Orange, Essex Co.	650 00	Oct. 17, 1913	782 47
513-1490:	Elva A. Betts, Jersey City, Hudson Co.	650 00	" " "	226 35
514-5318:	Frederic S. Moore, Deerfield Township, Cumberland Co.....	318 60	Dec. 12, 1913	1,768 88
515-4218:	George C. Munyan, Fairfield Township, Cumberland Co.....	250 00	" " "	1,226 50
516-92:	Phebe Smith Miller, Clayton Borough, Gloucester Co.....	223 60	" " "	1,593 99
517-585:	Charles H. Gleason, Sr., Newark, Essex Co.	650 00	" " "	3,608 82
518-1028:	Elizabeth F. Allan, Bayonne, Hudson Co.	650 00	" " "	3,608 82

*Deceased.

**Deceased before deficit to Fund was paid.

†Granted under Act prior to 1906.

Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1919.
519—1816:	Helen Herbert, Hoboken, Hudson Co.	\$650 00	Oct. 17, 1913	\$3,608 82
520—1579:	Katherine T. McDonnell, Jersey City, Hudson Co.	650 00	" " "	3,608 82
521—6798:	Emma A. Holloway, Raritan Township, Monmouth Co.	300 00	" " "	1,715 53
522—389:	Lillian A. Rusling, Passaic City, Passaic Co.	492 00	" " "	2,731 61
††523—2987:	Margaret C. J. Titus, Frankford Township, Sussex Co.	313 80	" " "	90 07
524—9644:	Eliza Elzira Snook, Montague Township, Sussex Co.	250 00	" " "	1,388 01
525—1257:	William D. Heyer, Elizabeth, Union Co.	650 00	" " "	1,397 91
526—2341:	Laura V. Fortiner, Collingswood Borough, Camden Co.	354 00	Mar. 20, 1914	1,869 16
527—454:	Margaret A. Day, Newark, Essex Co.	650 00	" " "	3,432 08
528—1531:	Sara B. Biddick, Jersey City, Hudson Co.	650 00	" " "	851 66
529—1629:	Mary B. Anderson, Jersey City, Hudson Co.	650 00	" " "	3,432 08
530—1712:	Kate Cringle, Jersey City, Hudson Co.	650 00	" " "	3,432 08
531—1797:	Jennie M. Fields, Jersey City, Hudson Co.	650 00	" " "	3,432 08
532—1199:	Mary J. Maloney, Paterson, Passaic Co.	547 20	" " "	2,839 23
533—2320:	Susie P. Struthers, Landis Township, Cumberland Co.	472 20	June 12, 1914	2,324 02
534—449:	Nellie B. Thompson, Newark, Essex Co.	650 00	" " "	3,282 04
535—726:	Caroline D. Schleck, Newark, Essex Co.	648 00	" " "	3,271 86
536—1440:	Lydia K. Ennis, Jersey City, Hudson Co.	650 00	" " "	3,282 04
537—1609:	Abner D. Joslin, Jersey City, Hudson Co.	650 00	" " "	3,282 04
538—1713:	Jane V. Horsley, Jersey City, Hudson Co.	650 00	" " "	3,282 04
539—1718:	Emma L. Ballou, Jersey City, Hudson Co.	650 00	" " "	3,282 04
540—6413:	Ella T. E. Schomp, Clinton Town, Hunterdon Co.	376 20	" " "	1,899 54
541—1348:	Maria M. Sherrad, Trenton, Mercer Co.	505 08	" " "	2,550 24
542—3331:	Lottie C. Slocum, Spring Lake Borough, Monmouth Co.	396 00	" " "	1,999 44
543—1184:	Albert F. Chadwick, Paterson, Passaic Co.	650 00	" " "	778 16
544—1226:	Carrie D. Bristol, Paterson, Passaic Co.	510 00	" " "	2,575 20
545—2303:	Mary L. H. Smick, Quinton Township, Salem Co.	250 00	" " "	1,262 24
546—1240:	Jennie S. Johnson, Elizabeth, Union Co.	650 00	" " "	3,282 04
547—203:	Alice W. Lansing, Plainfield, Union Co.	567 00	" " "	2,863 90
548—4330:	Grace F. Harned, Westfield Town, Union Co.	480 00	" " "	2,423 53
549—3036:	Mary C. Field, Trenton State Normal and Model Schools....	650 00	" " "	3,282 04
550—308:	Mrs. Abbie DuBois, Camden City, Camden Co.	468 00	Sept. 18, 1914	2,238 38
551—828:	Laura M. Fithian, Camden City, Camden Co.	438 00	" " "	2,094 90
552—863:	Hattie A. Lewis, Camden City, Camden Co.	438 00	" " "	123 90
553—895:	Mary N. Chambers, Camden City, Camden Co.	477 00	" " "	2,281 42
554—909:	Elizabeth F. Morris, Camden City, Camden Co.	468 00	" " "	2,238 38
555—3271:	Arabella Strang, Camden City, Camden Co.	650 00	" " "	3,108 86
556—403:	Elizabeth Leyden, Newark, Essex Co.	650 00	" " "	3,108 86
557—773:	Anna L. Garrabrant, Newark, Essex Co.	650 00	" " "	3,108 86
558—2944:	Amy Simpson, Newark, Essex Co.	650 00	" " "	3,108 86

*Deceased.

††No. 523 resumed teaching April 6, 1914, and payment of her annuity was suspended. She again ceased teaching at end of 1918-'19, and was granted an annuity of \$335.40, beginning to accrue July 11, 1919. She is continued as No. 523.

COMMISSIONER OF EDUCATION.

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Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1919.
559—1592:	Grace Van Gelder, Jersey City, Hudson Co.	\$850 00	Sept. 18, 1914	\$3,108 86
560—969:	Marie Lutkemann, Town of Union, Hudson Co.....	650 00	" " "	3,108 86
561—1377:	Sara E. Hagaman, Trenton, Mercer Co.	565 20	" " "	2,703 27
562—4350:	Everett C. Brainard, Denville, Morris Co.	370 20	" " "	1,159 26
563—129:	Hattie C. Youngblood, Morristown, Morris Co.....	480 00	" " "	2,295 78
564—6751:	Ella C. Bloom, Passaic Township, Morris Co.....	414 00	" " "	1,990 10
565—2097:	Mary M. Vreeland, Cranford Township, Union Co.....	582 00	" " "	2,783 62
566—1250:	Frances T. Mackey, Elizabeth, Union Co.	498 00	" " "	2,281 86
567—1767:	Mary H. von Gottschalck, Jersey City, Hudson Co.....	650 00	Oct. 10, 1914	759 84
568—4088:	Mrs. Rose A. Grady, Jersey City, Hudson Co.	596 16	" " "	2,816 52
569—5522:	Florence Agnes Nelson, Atlantic City, Atlantic Co.....	650 00	Dec. 17, 1914	2,949 92
570—742:	Lurena Dey, Newark, Essex Co.	650 00	" " "	2,949 92
571—4681:	Ida Louise Wilcox, Montclair Town, Essex Co.....	267 28	" " "	54 97
572—967:	James W. Phelan, Town of Union, Hudson Co.....	650 00	" " "	837 42
573—4023:	Elizabeth A. Brown, Trenton, Mercer Co.	547 20	" " "	2,413 16
574—2350:	Laura N. Wilson, New Brunswick, Middlesex Co.....	447 00	" " "	2,028 63
575—1173:	Margaret C. Houston, Paterson, Passaic Co.	600 00	" " "	2,723 00
576—7065:	Mrs. Harriet Evans, State Home for Girls, Trenton.....	250 00	" " "	1,184 57
577—2947:	Helen Marie Bleakly, Camden City, Camden Co.....	600 00	Mar. 19, 1915	2,569 71
578—2052:	Sara H. Thompson, Oaklyn Borough, Camden Co.....	430 20	" " "	1,842 48
579—650:	Abbie J. Hoppaugh, Newark, Essex Co.	650 00	" " "	2,783 86
580—738:	Joseph L. Terwilliger, Newark, Essex Co.	650 00	" " "	2,783 86
†581—1933:	Nellie P. McCain, Hoboken, Hudson Co.	583 28	Apr. 1, 1915	2,478 94
582—1756:	Clara A. Pendleton, Jersey City, Hudson Co.	650 00	Mar. 19, 1915	2,783 86
583—24:	Stephen Higginson, Raritan Township, Monmouth Co.....	351 00	" " "	1,503 28
†584—118:	Edgar W. Polhemus, Dover Township, Ocean Co.....	247 48	Apr. 1, 1915	1,051 79
585—2314:	Elizabeth English, Atlantic City, Atlantic Co.	290 40	June 11, 1915	1,176 70
586—6931:	Thomas W. Hartman, Pleasantville City, Atlantic Co.....	650 00	" " "	258 82
587—2900:	Mrs. Ellen M. M. Aitken, Chester Township, Burlington Co...	525 60	" " "	2,129 76
588—2016:	Mrs. Laura A. McKaig, Sea Isle City, Cape May Co.....	337 00	" " "	1,568 14
589—5321:	George W. Bowman, Downe Township, Cumberland Co.....	570 00	" " "	2,309 65
590—551:	Anna C. Dunnell, Newark, Essex Co.	650 00	" " "	2,633 82
591—927:	Emma J. Baker, Orange, Essex Co.	474 52	" " "	1,922 78
†592—1836:	Clara M. Ward, Hoboken, Hudson Co.	585 68	July 1, 1915	2,342 72
593—1911:	Sophie G. Schrader, Hoboken, Hudson Co.	650 00	June 11, 1915	2,633 82
594—259:	Edward Kernan, Weehawken, Hudson Co.	650 00	" " "	2,633 82
595—6757:	Mrs. Nellie Heisley, Red Bank, Monmouth Co.	445 20	" " "	212 47
596—323:	David Davis, Shrewsbury Township, Monmouth Co.....	550 92	" " "	2,282 85
597—5190:	Henry W. Sterner, Union Township, Ocean Co.....	540 00	" " "	2,188 10
598—1273:	Louise E. Braun, Elizabeth, Union Co.	650 00	" " "	2,633 82
599—2051:	Anna Hudson, Galloway Township, Atlantic Co.....	337 40	Sept. 17, 1915	1,239 39

*Deceased.

†Granted under Act prior to 1906.

Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1919.
600—312:	Mary Hawkins Locke, Camden City, Camden Co.....	\$474 00	Sept. 17, 1915	\$1,794 37
601—825:	Clara R. Titus, Camden City, Camden Co.	650 00	" " "	2,460 64
602—851:	Laura A. Pike, Camden City, Camden Co.	474 00	" " "	1,794 37
603—869:	Alfarata B. Sharp, Camden City, Camden Co.	441 00	" " "	1,669 45
604—3472:	Clara Louise Muillner, Camden City, Camden Co.....	600 00	" " "	1,422 23
605—5590:	Lillian M. Thompson, Camden City, Camden Co.....	474 00	" " "	1,794 37
606—320:	Mary T. Whittington, Gloucester City, Camden Co.....	567 00	" " "	2,146 43
607—2379:	Charles Tomlin, Middle Township, Cape May Co.....	378 00	" " "	1,430 95
608—512:	Fanny Lee Buchanan, Newark, Essex Co.	650 00	" " "	2,460 64
†609—627:	Helen Herbst, Newark, Essex Co.	594 00	Oct. 1, 1915	2,237 50
610—2164:	John H. Tharp, Mantua Township, Gloucester Co.....	448 96	Sept. 17, 1915	1,699 59
611—276:	Lydia Gibson Pierson, Woodbury, Gloucester Co.....	231 00	" " "	1,215 17
612—992:	Henry E. Harris, Bayonne, Hudson Co.	650 00	" " "	2,460 64
613—1521:	Edith L. Childs, Jersey City, Hudson Co.	650 00	" " "	2,460 64
614—1564:	Alida Outwater, Jersey City, Hudson Co.	650 00	" " "	2,460 64
615—1570:	Mrs. Susan Clarke Marvin, Jersey City, Hudson Co.....	650 00	" " "	2,460 64
616—1697:	Nellie C. Dutch, Jersey City, Hudson Co.	650 00	" " "	2,460 64
617—1698:	Ida M. Falkenbury, Jersey City, Hudson Co.	650 00	" " "	2,460 64
618—1701:	Harriet A. Ward, Jersey City, Hudson Co.	650 00	" " "	2,460 64
619—1714:	Eva Hilton Lott, Jersey City, Hudson Co.	650 00	" " "	2,460 64
620—3128:	Fannie Powell, Hamilton Township, Mercer Co.....	373 80	" " "	1,415 06
621—3627:	Frederic W. Eveleth, Jersey City, Hudson Co.	650 00	" " "	2,460 64
622—3673:	Langdon S. Thompson, Jersey City, Hudson Co.....	650 00	" " "	2,460 64
623—5774:	Dena Clayton, Marlboro Township, Monmouth Co.....	318 00	" " "	1,203 82
624—130:	Mary L. Lindabery, Wharton Borough, Morris Co.....	360 00	" " "	1,362 81
625—2242:	Addie Mary Reilly, Wharton Borough, Morris Co.....	390 00	" " "	1,476 33
626—86:	Winfield Irons, Dover Township, Ocean Co.	315 00	" " "	1,192 46
627—3509:	Emma C. Spencer, Passaic City, Passaic Co.	498 00	" " "	1,885 23
628—2396:	Myra E. Drake, Hardyston Township, Sussex Co.....	212 00	" " "	1,181 10
629—208:	Louise Wood (Mrs. Harmon Louise Wood Spear), Plainfield, Union Co.	558 00	" " "	2,112 36
630—211:	Millicent E. Humpston, Plainfield, Union Co.....	650 00	" " "	2,460 64
631—337:	James E. Demarest, New Barbadoes Township, Bergen Co...	650 00	Dec. 10, 1915	2,312 38
632—3116:	Lizzie H. Lummis, Camden City, Camden Co.	444 00	" " "	1,679 53
633—4671:	Maria Dupont Whitaker, Winslow Township, Camden Co.....	250 00	" " "	889 36
634—544:	Mary R. Bird, Newark, Essex Co.	650 00	" " "	1,523 02
635—644:	Evelyn S. Symons, Newark, Essex Co.	650 00	" " "	418 76
636—6633:	Cornelius S. Thacher, Newark, Essex Co.	650 00	" " "	2,312 38
637—25:	Theodore Fleetwood, Westville Borough, Gloucester Co.....	650 00	" " "	2,312 38
638—1001:	Hannah E. Wilson, Bayonne, Hudson Co.	650 00	" " "	2,312 38
639—1941:	Sarah H. Mitchell, Hoboken, Hudson Co.	650 00	" " "	2,312 38

*Deceased.

†Granted under Act prior to 1906.

COMMISSIONER OF EDUCATION.

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Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1919.
640—1429:	Teresa Coppinger, Jersey City, Hudson Co.	\$650 00	Dec. 10, 1915	\$2,312 38
641—1491:	Alice P. M. Ashhurst, Jersey City, Hudson Co.	650 00	" " "	2,312 38
642—1510:	Katharine A. Young, Jersey City, Hudson Co.	650 00	" " "	2,312 38
643—1528:	Julia A. Minihan, Jersey City, Hudson Co.	650 00	" " "	2,312 38
644—1678:	Mrs. Martha F. Coleman, Jersey City, Hudson Co.	650 00	" " "	2,312 38
645—1300:	Elizabeth R. Blair, Trenton, Mercer Co.	650 00	" " "	1,263 88
646—2918:	Mrs. Anna Williams, North Brunswick Township, Middlesex Co.	324 00	" " "	1,152 62
647— 108:	Albert Robinson, Upper Freehold Township, Monmouth Co.	600 00	" " "	2,134 50
648— 109:	Ella M. Newell, Upper Freehold Township, Monmouth Co.	300 00	Dec. 10, 1915	812 39
649— 110:	Mrs. Elizabeth P. Ford, Upper Freehold Township, Monmouth Co.	300 00	" " "	1,067 24
650—4558:	Stacy B. Emmons, Roxbury Township, Morris Co.	477 00	" " "	1,696 92
651—1102:	Katharine C. Meegan, Paterson, Passaic Co.	650 00	" " "	2,312 38
652—5859:	William J. Ayres, Franklin Township, Somerset Co.	273 60	" " "	973 32
653—2245:	Chauncey D. Greene, Harrington Township, Bergen Co.	522 00	Mar. 17, 1916	960 69
654— 743:	Isabel Hampton, Newark, Essex Co.	650 00	" " "	2,137 42
655— 754:	E. Jane Peer, Newark, Essex Co.	650 00	" " "	2,137 42
656—3424:	Lucasta C. Baldwin, Newark, Essex Co.	650 00	" " "	2,137 42
†657—1914:	Mary C. Applegate, Hoboken, Hudson Co.	591 00	Apr. 1, 1916	1,920 75
†658—1931:	Angelina Burnett, Hoboken, Hudson Co.	586 33	" " "	1,907 36
†659—1939:	Isabel E. Jackson, Hoboken, Hudson Co.	586 33	" " "	1,907 36
660—1672:	Isabella Westcott, Jersey City, Hudson Co.	650 00	Mar. 17, 1916	154 86
661—1800:	Barbara McGowan, Jersey City, Hudson Co.	650 00	" " "	282 76
†662—1057:	Martha T. Johnston, Paterson, Passaic Co.	594 00	Apr. 1, 1916	1,930 50
663— 704:	Alice M. Fletcher, Newark, Essex Co.	650 00	June 9, 1916	1,987 33
664—3100:	Annie Shreve Burgyes, Newark, Essex Co.	650 00	" " "	1,987 33
665— 961:	Jennie S. Currey, Town of Union, Hudson Co.	650 00	" " "	62 30
666—7306:	Mary Phillips (Mrs. Louis Labaw), Hopewell Township, Mercer Co.	430 80	" " "	1,317 18
667—3963:	Mary Elizabeth Vaughan, Perth Amboy, Middlesex Co.	650 00	" " "	199 88
668—7497:	Carrie O. Jacques, Roosevelt Borough, Middlesex Co.	393 00	" " "	1,201 59
669—1120:	Adeline E. Smith, Paterson, Passaic Co.	612 00	" " "	1,871 19
670— 159:	Mrs. M. Virginia Bronson, Salem City, Salem Co.	300 00	" " "	917 24
671—2328:	Minnie L. Taylor, Summit City, Union Co.	650 00	" " "	1,987 33
672—2012:	Elizabeth Stryker, Westfield Town, Union Co.	580 20	" " "	1,773 96
673— 889:	Annie L. Morton, Camden City, Camden Co.	450 00	Sept. 15, 1916	1,255 93
674— 327:	Emma W. Middleton, Haddonfield Borough, Camden Co.	432 00	" " "	1,205 74
675— 300:	Eliza Howe Gilbert, Montclair Town, Essex Co.	650 00	" " "	1,814 20
676— 469:	Emma F. Woodward, Newark City, Essex Co.	650 00	" " "	1,814 20
677— 476:	Linda M. Geraghty, Newark City, Essex Co.	650 00	" " "	1,814 20
678— 680:	Emma F. Baldwin, Newark City, Essex Co.	650 00	" " "	1,814 20

*Deceased.

†Granted under Act prior to 1906.

SCHOOL REPORT.

Annuit and Membership Numbers.	Name, District and County Re- tired From.	Net Annual Value of Annuity.	Annuit Began to Accrue.	Total Rec'd to June 30, 1919.
679—684:	Agnes B. Clarke, Newark City, Essex Co.	\$650 00	Sept. 15, 1916	\$1,814 20
680—943:	Amelia Douglas, Orange City, Es- sex Co.	480 00	" " "	1,339 72
681—2003:	Emma J. Bainbridge, Newark City, Essex Co.	650 00	" " "	1,814 20
682—2178:	Almeda M. Olds, Newark City, Essex Co.	650 00	" " "	619 22
†683—1915:	Lavina Reid, Hoboken City, Hud- son Co.	594 00	" " "	1,633 50
684—1645:	Jane Eleanor Pearson, Jersey City, Hudson Co.	650 00	" " "	1,814 20
685—1715:	Clara Post, Jersey City, Hudson Co.	650 00	" " "	1,814 20
686—1799:	Louisa M. Goetze, Jersey City, Hudson Co.	650 00	" " "	1,814 20
687—2549:	Mrs. Bessie D. Sked, Hopewell Township, Mercer Co.	330 00	" " "	921 06
688—1400:	Frances K. Peters, Trenton City, Mercer Co.	650 00	" " "	1,814 20
689—7072:	Jennie M. Strong, Atlantic Town- ship, Monmouth Co.	384 00	" " "	1,071 78
690—5180:	Elizabeth Benard, Neptune Town- ship, Monmouth Co.	480 00	" " "	1,339 72
691—5181:	Mrs. Hannah A. B. Stout, Nep- tune Township, Monmouth Co..	480 00	" " "	1,339 72
692—376:	Elizabeth Thorpe, Passaic City, Passaic Co.	594 00	" " "	1,657 90
693—1086:	Jessie F. Day, Paterson City, Passaic Co.	510 00	" " "	1,423 45
694—1159:	Jane Neer, Paterson City, Pas- saic Co.	510 00	" " "	1,423 45
695—4757:	J. Harry Smith, Oldmans Town- ship, Salem Co.	459 00	" " "	1,281 10
696—5214:	Alfarata Dilks, Pilesgrove Town- ship, Salem Co.	345 00	" " "	962 92
697—173:	Anna Coombs, Salem City, Sa- lem Co.	435 00	" " "	1,214 11
698—1243:	Matilda B. Fallon, Elizabeth City, Union Co.	535 20	" " "	1,493 79
699—1259:	Emily A. Cheney, Elizabeth City, Union Co.	510 00	" " "	1,423 45
700—3356:	George P. Albright, Rahway City, Union Co.	650 00	" " "	1,814 20
701—3500:	Georgia Morris, Atlantic City, At- lantic Co.	582 00	Dec. 8, 1916	1,491 66
702—1954:	Ida T. Ware, Bridgeton City, Cumberland Co.	408 00	" " "	1,045 69
703—779:	Ada E. Sargeant, Newark, Essex Co.	650 00	" " "	1,665 94
704—7198:	Elizabeth Wyckoff, Newark City, Essex Co.	650 00	" " "	1,665 94
705—1518:	Stella Stanley, Jersey City, Hud- son Co.	650 00	" " "	1,665 94
706—1533:	Elizabeth S. McGown, Jersey City, Hudson Co.	650 00	" " "	1,665 94
707—3053:	James E. White, Town of Union, Hudson Co.	650 00	" " "	1,665 94
708—2790:	May Schall, Trenton City, Mer- cer Co.	493 68	" " "	1,265 30
709—1186:	Josephine Conwell, Paterson, Pas- saic Co.	650 00	" " "	1,665 94
710—5785:	George Oliver Nelson, Pompton Township, Passaic Co.	650 00	" " "	1,665 94
711—6245:	Mrs. Harriet A. L. Clapp, New Barbadoes Township, Bergen Co.	474 00	Mar. 16, 1917	1,085 97
712—549:	Kate L. Bristol, Newark City, Essex Co.	650 00	" " "	1,489 20
713—720:	Arnold Voget, Newark City, Es- sex Co.	650 00	" " "	1,489 20
714—1664:	Bessie L. De Motte, Jersey City, Hudson Co.	650 00	" " "	1,489 20
715—13521:	Mrs. Alice Mary Eckoff, Newark City, Essex Co.	627 80	" " "	1,437 89
716—649:	S. Fannie Carter, Newark City, Essex Co.	650 00	Apr. 20, 1917	1,426 38
717—3169:	Mrs. Mary L. Metz, Jersey City, Hudson Co.	650 00	" " "	1,426 38
718—2764:	Thomas L. Walters, South Bound Brook Borough, Somerset Co..	558 00	" " "	1,224 49

*Deceased.

†Granted under Act prior to 1906.

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Annulty and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annulty.	Annulty Began to Accrue.	Total Rec'd to June 30, 1919.
719—3477:	Mrs. Isabel B. Huff, Perth Amboy City, Middlesex Co.....	\$555 60	Apr. 20, 1917	\$1,219 26
720— 831:	Mary A. Burrough, Camden City, Camden Co.	650 00	June 15, 1917	1,326 70
721— 891:	Elizabeth A. Cassady, Camden City, Camden Co.....	650 00	" " "	1,059 42
722— 872:	Kate F. Dinan, Camden City, Camden Co.	650 00	" " "	1,326 70
723— 833:	Anna Holland, Camden City, Camden Co.	468 00	" " "	955 23
724—1909:	Elinor G. Howard, Hoboken City, Hudson Co.	650 00	" " "	1,326 70
725—3464:	Anna Johntra, Camden City, Camden Co.	650 00	" " "	1,326 70
726— 866:	Margaret T. Magee, Camden City, Camden Co.	650 00	" " "	1,326 70
727—1453:	Anna J. Mahlstedt, Jersey City, Hudson Co.	650 00	" " "	1,326 70
728— 71:	Fannie DeWitt Person, Belvidere Town, Warren Co.....	360 00	" " "	734 79
729—2030:	Lester L. Rosenkrans, Leonia Borough, Bergen Co.....	650 00	" " "	1,326 70
730—2219:	Elizabeth M. Stanger, Ridgewood Township, Bergen Co.....	484 20	" " "	983 29
731—1993:	Harriet C. Clinton, Bordentown City, Burlington Co.....	393 00	Sept. 28, 1917	690 98
732—1494:	Elizabeth Frazee, Jersey City, Hudson Co.	650 00	" " "	1,142 84
733— 355:	Carrie C. Herbert, Southampton Township, Burlington Co.....	250 00	" " "	439 55
734— 79:	Louise J. McConnell, Perth Amboy, Middlesex Co.....	570 00	" " "	1,002 18
735—2169:	Josephine Mahon, East Orange, Essex Co.	650 00	" " "	1,142 84
736—5349:	Charles W. Oley, Midland Park Borough, Bergen Co.....	650 00	" " "	1,142 84
737—1123:	Elizabeth M. O'Neill, Paterson City, Passaic Co.....	450 00	" " "	791 20
738—3542:	Mahlon B. Reed, Palisades Township, Bergen Co.....	650 00	" " "	1,142 84
739—1618:	Grace H. Sayers, Jersey City, Hudson Co.	650 00	" " "	1,142 84
740— 426:	Emma M. Sturgis, Newark City, Essex Co.	650 00	" " "	1,142 84
741—1605:	Eather Van Winkle, Jersey City, Hudson Co.	650 00	" " "	1,142 84
742—2342:	Amanda Wilson, Hammonton Town, Atlantic Co.....	462 00	" " "	812 20
743—2763:	Mrs. Emilie F. Woodruff, Lawrence Township, Cumberland Co.	267 84	" " "	470 92
†744— 168:	J. R. Fitzer, Jersey City, Hudson Co.	594 00	Jan. 1, 1918	891 00
745—2004:	Hon. Herman A. Stees, Burlington County Superintendent.....	650 00	Oct. 20, 1917	1,104 95
746— 222:	Georgia T. Underhill, Rahway City, Union Co.....	450 00	" " "	764 93
747—1733:	Kate R. Carlin, Jersey City, Hudson Co.	650 00	Jan. 5, 1918	967 88
748—3112:	Katie Francis, Camden City, Camden Co.	650 00	" " "	967 88
749—1907:	Virginia Harry, Hoboken City, Hudson Co.	650 00	" " "	967 88
750—2408:	Ella McDonalds, Cranford Township, Union Co.	589 20	" " "	877 35
751—7505:	Agnes R. Moore, Red Bank Borough, Monmouth Co.....	600 00	" " "	893 43
752—1078:	Margaret M. E. Phelan, Paterson City, Passaic Co.....	450 00	" " "	670 08
753—1140:	E. Louise Pulver, Paterson City, Passaic Co.	540 00	" " "	804 09
754—1479:	Agnes R. Reilly, Jersey City, Hudson Co.	650 00	" " "	967 88
755— 1:	Elijah D. Riley, Absecon City, Atlantic Co.	551 40	" " "	821 06
756— 69:	Tillie G. Rittenhouse, Belvidere Town, Warren Co.....	360 00	" " "	536 06
757—1556:	Sara Sickels, Jersey City, Hudson Co.	650 00	" " "	967 88
758—2267:	Mrs. Lelia B. Valentine, Millville City, Cumberland Co.....	360 00	" " "	536 06
759—2151:	Wilbur Watts, Burlington City, Burlington Co.	650 00	" " "	967 88

*Deceased.

†Granted under Act prior to 1908.

Annuity and Membership Numbers.	Name, District and County Re- tired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1919.
760—763:	Margaret Baird, Newark City, Essex Co.	\$650 00	Jan. 5, 1918	\$967 88
761—169:	Eliza E. Jaquett, Salem City, Salem Co.	423 00	" " "	629 87
762—579:	Sarah E. McDonald, Newark City, Essex Co.	643 00	" " "	957 46
763—1798:	Mary S. Meehan, Jersey City, Hudson Co.	650 00	" " "	967 88
764—752:	Matilda Johnson Speer, Newark City, Essex Co.	650 00	" " "	967 88
765—4735:	Mrs. Adeline K. Stillwell, Red Bank, Monmouth Co.	540 00	Feb. 1, 1918	762 26
766—2233:	Anna M. Branson, Beverly Town- ship, Burlington Co.	430 80	Jan. 5, 1918	641 48
767—5518:	Elizabeth C. Allen, Atlantic City, Atlantic Co.	650 00	Mar. 29, 1918	817 84
768—16:	Amelia J. Peters, Lakewood Township, Ocean Co.	462 00	" " "	581 29
769—7487:	Grace A. Wood, State Normal School, Trenton	650 00	" " "	817 84
770—207:	Anna W. Booraem, Plainfield, Union Co.	650 00	June 30, 1918	651 78
771—3422:	Kersey S. Blake, Newark, Essex Co.	650 00	July 1, 1918	244 38
772—5536:	W. Irving Bray, Cliffside Park Borough, Bergen Co.	650 00	" " "	650 00
773—6782:	Ala Media Everitt, South Am- boy City, Middlesex Co.	387 00	June 30, 1918	338 06
774—1285:	Katharine A. Hughes, Elizabeth, Union Co.	650 00	July 1, 1918	650 00
775—1388:	Anna Rebecca Lanning, Trenton, Mercer Co.	510 00	" " "	510 00
776—868:	Cella E. Roth, Camden City, Camden Co.	450 00	June 30, 1918	451 23
777—993:	Hannah J. Shafer, Bayonne City, Hudson Co.	650 00	June 1, 1918	650 00
778—1349:	Mary E. Steen, Trenton City, Mercer Co.	650 00	June 30, 1918	651 78
779—2020:	Mrs. Anna F. Barber, Penna- grove Borough, Salem Co.	279 30	Sept. 27, 1918	212 52
780—2074:	Clara P. Correll, Phillipsburg Town, Warren Co.	450 00	" " "	342 42
781—3124:	Mrs. Isabella D. Coxson, Chester Township, Burlington Co.	408 00	" " "	310 46
782—2287:	Hiram Lanning, Fisher, Milford Borough, Hunterdon Co.	441 00	" " "	335 58
783—2240:	Mary M. Gee, West Orange Town, Essex Co.	618 00	" " "	470 27
784—393:	Mrs. Elizabeth R. Jarvis, Passaic City, Passaic Co.	528 00	" " "	401 78
785—1262:	Minnie E. Loach, Elizabeth City, Union Co.	547 20	" " "	416 39
786—3189:	Katherine L. McNulty, Jersey City, Hudson Co.	594 00	Oct. 1, 1918	445 50
787—2570:	Adelaide Davis Miller, Newark City, Essex Co.	650 00	Sept. 27, 1918	494 62
788—652:	Mattie M. Miller, Newark City, Essex Co.	650 00	" " "	494 62
789—1844:	Mrs. Kate J. Myddleton, Ho- boken City, Hudson Co.	650 00	Oct. 1, 1918	487 50
790—1428:	Mary H. Nicholson, Jersey City, Hudson Co.	650 00	Sept. 27, 1918	494 62
791—2343:	Mary P. Rogers, Newark City, Essex Co.	650 00	" " "	494 62
792—574:	Fannie Taylor, Newark City, Es- sex Co.	650 00	" " "	494 62
793—6529:	Mrs. Lizzie L. Townsend, Burl- ington, Burlington Co.	429 00	" " "	326 45
794—80:	Amanda E. Van Nuls, Perth Am- boy City, Middlesex Co.	600 00	" " "	456 57
795—1292:	Katherine M. Warner, Elizabeth City, Union Co.	650 00	" " "	494 62
796—3951:	Sarah R. Budd, State Normal School, Trenton	650 00	Oct. 25, 1918	446 04
797—811:	Marie C. Contessa, West Ho- boken Town, Hudson Co.	650 00	" " "	446 04
798—4331:	Elizabeth Hall, Trenton City, Mercer Co.	480 00	" " "	329 42
799—357:	Jennie T. Wright, Mullica Town- ship, Atlantic Co.	319 68	" " "	219 34
800—2619:	Cornelius V. Boughton, High- lands Borough, Monmouth Co..	650 00	Jan. 4, 1919	319 68

*Deceased.

Annuity and Membership Numbers.	Name, District and County Retired From.	Net Annual Value of Annuity.	Annuity Began to Accrue.	Total Rec'd to June 30, 1919.
801—897:	Eva Halliwell, Camden City, Camden Co.	\$536 96	Jan. 4, 1919	\$261 91
802—5920:	Georgia Hegeman, Newark City, Essex Co.	650 00	" " "	319 66
803—1290:	Emma A. Lockerson, Trenton City, Mercer Co.....	650 00	" " "	319 66
804—1522:	Martha A. Meller, Jersey City, Hudson Co.	650 00	" " "	319 66
805—621:	M. Alice Moore, Newark City, Essex Co.	650 00	" " "	319 66
806—6410:	Katharine Regina Rice, Harrison Town, Hudson Co.....	600 00	" " "	295 08
807—4737:	John Calvin Tilton, Wall Township, Monmouth Co.....	421 92	" " "	207 50
808—4709:	Allton H. Sherman, West Orange Town, Essex Co.	650 00	Jan. 11, 1919	307 20
809—343:	Jennie C. Carmody, New Barbadoes Township, Bergen Co...	598 20	Jan. 4, 1919	294 19
810—1454:	Kate Z. Banks, Jersey City, Hudson Co.	650 00	Mar. 28, 1919	169 62
811—2199:	Lillian May Galloway, Bloomfield Town, Essex Co.....	592 48	" " "	96 43
812—1532:	Mary A. Tew, Jersey City, Hudson Co.	650 00	" " "	169 62
813—1703:	Eva Catherine Thompson, Jersey City, Hudson Co.	650 00	" " "	169 62
814—7477:	Annie Van Dyke Wright, Lawrence Township, Mercer Co....	385 80	" " "	100 66
815—599:	Lucy Anna Richards, Newark City, Essex Co.....	650 00	Jan. 4, 1919	319 66
816—184:	Emma C. Faussett, State Normal School, Trenton	606 00	June 14, 1919	23 22
817—1786:	Nellie F. Hills, Jersey City, Hudson Co.	650 00	" " "	30 26
818—2180:	Henrietta S. Leslie, Gloucester Township, Camden Co.....	417 00	" " "	19 41
819—398:	Grace Merry, Newark City, Essex Co.	650 00	" " "	30 26
820—329:	Cora B. Locke, Camden City, Camden Co.	490 80	" " "	22 84
821—888:	Georgie A. Scott, Camden City, Camden Co.	466 80	" " "	21 72
Totals to June 30, 1919—821.....		\$392,013 86		\$2,194,463 59
Averages		477 48		2,672 94

*Deceased.
**Deceased before deficit to Fund was paid.
***Deceased before annuity began to accrue.
†Granted under Act prior to 1906.
††Granted under Act of 1906.
All other annuities granted under Act of 1907.
†††Resumed teaching; payment of annuity suspended.
††††Numbers 191 and 453 were granted under exceptional circumstances; see foot notes.
‡Balance due estate of deceased annuitant.

STATISTICS IN RE ANNUITIES GRANTED FROM BEGINNING TO JUNE 30, 1919.

	Men.	Women.	Total.
Number of annuities granted	126	695	821
Annual value of annuities	\$61,685 40	\$330,328 46	\$392,013 86
Average annual value	489 56	475 29	477 48

DECEASED.

	Men.	Women.	Total.
Number of deceased	48	161	209
Annual value of annuities	\$22,801 60	\$68,441 56	\$91,243 16
Average annual value	475 03	425 10	436 57

ANNUITIES IN FORCE JUNE 30, 1919.

	Men.	Women.	Total.
Annuities in force June 30, 1919.....	78	594	612
Total annual value	\$38,883 80	\$261,886 90	\$300,770 70
Average annual value	498 51	490 42	491 45

SYNOPSIS OF BUSINESS OF FISCAL YEAR 1918-1919.

The operations of the year which ended June 30, 1919, may be summarized as follows: Receipts, \$299,702.50. (Note—The aforesaid receipts do not include \$51,750.00 received on account of investments paid off. The actual income, received and receivable, was at least \$30,000.00 in excess of these figures. At the time the State Treasurer's books closed, June 30, 1919, many districts had not remitted for the April-June quarter; the subsequent receipts have been abnormally large, but it will be impossible to discover what the 1918-1919 income might have been under ordinary circumstances, because the new legislation, effective April 10, 1919, permitted members to withdraw from the Fund, and a large number withdrew in April and May to prevent their May and June dues from being deducted, which, of course, reduced the normal 1918-1919 income.) Disbursements were \$295,179.68, of which \$293,379.93 was for annuities. (Note—The aforesaid disbursements do not include investments amounting to \$103,707.72.) The actual surplus on the year's business, including dues receivable, is estimated at about \$35,000.00. (Full details of receipts, disbursements and investments are given in the State Treasurer's report at beginning of this chapter.) Forty-three annuities were granted; total annual value, \$24,460.14; average, \$568.84. All but one were granted under the Act of 1907. Sixteen of the 1918-'19 annuitants paid their deficit in cash; the remaining 27 took advantage of that provision of the law which permits the deficit to be liquidated by the accruing annuity. Four annuities were granted to men; total annual value, \$2,162.92; average, \$540.73. Thirty-nine annuities were granted to women; total annual value, \$22,297.22; average, \$571.72. Thirty-one of the 43 annuities granted in 1918-'19, totalling \$18,370.18, and averaging \$592.58, were entitled, also, to a State pension totalling \$19,385.81, and averaging \$625.35; making \$1,217.93 the total entire average retiring allowance (Retirement Fund annuity and State pension) of the 31 who received both grants. The average retiring allowance of the 12 who received only the Retirement Fund annuity was \$507.49. Twenty annuities deceased in 1918-'19; total annual value, \$9,317.76; average, \$465.88. Two annuities have resumed teaching: No. 523, \$313.80, in April, 1914; No. 269, \$296.60, in November, 1917; payment of these annuities has been suspended, and they are deducted from total annuities living and in force. The next 1918-'19 increase in annuity obligations was 23; annual value, \$14,845.78. A number of applications were rejected because the applicants had not, in the judgment of the Board of Trustees, proved that they were permanently incapacitated, as required by law. At the close of business June 30, 1919, 612 annuities were in force; total annual value \$300,770.70; average, \$491.45. Assets, (estimated,) \$530,000.00; annuities and expenses paid to midnight June 30, 1919.

RECAPITULATION FROM BEGINNING TO JUNE 30, 1919.

The Teachers' Retirement Fund became a part of New Jersey's Public School System by virtue of Chapter 32, page 58, Laws of 1896, (enacted March 11th,) nine times amended and re-enacted, and has always been a part of the State School Law. The first appropriation made by the State to

pay the administrative expenses of the Fund was Chapter 95, page 194, Laws of 1905, providing \$1,500.00, which became available for the year that began November 1, 1906. The latest general revision is Chapter 139, page 365, Laws of 1907, Article XXV., School Law, (approved May 7th). The latest enactment is Chapter 81, page 186, Laws of 1919, (approved April 10th,) which permits members to withdraw from the Fund, and practically terminates its career.

The Constitutionality of the "by virtue of appointment" provision, (Section 221, Division IV., Chapter 139, page 165, Laws of 1907; Article XXV., School Law), was sustained by the case of Myrtle Allen vs. the Passaic City Board of Education, in the District Court, the Supreme Court, and the Court of Errors and Appeals. The case is reported in the Advance Programs of the New Jersey State Teachers' Association for 1910 and 1911, and in the annual reports of the same organization for 1910 and 1912.

To June 30, 1919, eight hundred and twenty-one teachers had been granted annuities, aggregating a total annual value of \$392,013.86; averaging \$477.48, and had received benefits totaling \$2,194,463.59; averaging \$2,672.94. Of the 821 annuities granted, 126 were to men, total annual value, \$61,685.40; average, \$489.56, while 695 annuities had been granted to women; total annual value, \$330,328.46; average, \$475.29. Two hundred and nine annuities had deceased; total annual value, \$91,243.16; average, \$436.57. Annuities No. 269, (\$297.60), and No. 523, (\$313.80), had resumed teaching, and payment of annuity suspended. Six hundred and twelve annuities were in force June 30, 1919; total annual value, \$300,770.70; average \$491.45. Total rebates paid, \$1,520.40. Assets, June 30, 1919; Investments, \$429,872.40; cash in bank, \$59,652.04; dues receivable, (est.) \$40,475.54; total, (est.) \$530,000.00; annuities and expenses paid in full to date. Total cash raised by Fund to June 30, 1919, (Approx.), \$2,720,345.00. Receipts from bequests, legacies and gifts, \$7,716.92; receipts from bazaars, fairs, excursions, entertainments, etc., \$31,330.49; of this total amount, (\$38,937.41), \$33,445.82 was contributed prior to January 1, 1906. All such moneys, including legacies, bequests and gifts, go into the invested permanent principal, and, therefore, by the process of compound interest, have practically doubled, so it is safe to assume that of the Fund's present assets, \$530,000.00, above \$75,000.00 must be credited to the proceeds of fairs, entertainments, legacies, gifts, etc., with compound interest thereon.

BALANCES DUE ESTATES OF DECEASED ANNUITANTS JUNE 30, 1919.

The following statement, which is corrected annually, shows balances due estates of deceased annuitants on June 30th, last, the end of the fiscal year. Some of the items are in process of settlement. Some have not been claimed, though this Board, immediately on learning of a decease, seeks the nearest of kin and does all in its (the Board's) power to enable them to collect. In most of the above-reported cases, there has been no response to the inquiries. In the "List of Beneficiaries," each of the deceased annuitants is charged, under "Total Recd. from Fund," with the balance due the estate.

No.	Number and Name.	Date of Decease.	Balance Due Estate.
3—	Abby M. Munn	Apr. 8, 1913	\$8 16
27—	Janet F. Wright	Nov. 14, 1912	30 26
81—	Anna R. Johnson	Feb. 9, 1908	27 20
117—	Mrs. Mary Louise Keating.....	July 22, 1907	22 66
126—	Lucinda I. Ellis	Oct. 11, 1914	7 45
156—	Martha M. Putnam	Nov. 10, 1912	28 94
166—	Mary Louise Vreeland	Jan. 18, 1916	27 81
653—	Chauncey D. Greene	Jan. 19, 1918	27 17
226—	Thomas M. White.....	Feb. 24, 1919	97 90
Totals—9			\$277 55

BEQUESTS, LEGACIES AND GIFTS.

Following is a schedule of legacies and gifts to June 30, 1917:

1899—	Henry E. Harris, Bayonne, Hudson Co.; gift	\$50 00
1900—	Emily S. Sayre, annuitant, Woodstown, Salem Co.; legacy half her estate	2,285 74
1902—	Mary G. Lindsley, annuitant, Morristown, Morris Co.; gift; balance of annuity due estate; Thro. her sister, Miss H. Anna Lindsley	33 00
1905—	Carrie B. Runyon, annuitant, Plainfield, Union Co.; legacy	100 00
1908—	Lydia V. Marden, annuitant, Trenton, Mercer Co.; legacy; ten shares of stock of New Jersey Interstate Fair As- sociation, par value, \$10.00	100 00
1912—	Edward Kelly, annuitant, Jersey City, Hudson Co.; legacy..	500 00
1912—	Rachel H. Strong, annuitant, Waterford Tp., Camden Co.; gifts; balance annuity due estate; Thro. Miss Sarah E. Wilson, of Westmount	1 61
1913—	Minnie Whitehead, annuitant, Rahway, Union Co.; gift; bal- ance annuity due estate; Thro. Miss Adelia Oppelt, ex- ecutrix	36 43
1914—	Alex. P. Kerr, annuitant, Lambertville, Hunterdon Co.; gift; balance annuity due estate; Thro. Miss Annie F. Stout.	32 04
1914—	Lizzie H. Kaighn, annuitant, Camden, Camden Co.; legacy.	500 00
1915—	Clara V. Havens, annuitant, Hoboken, Hudson Co.; gift; balance annuity due estate; Thro. Miss Louise S. Win- ter, executrix	8 90
1917—	Jessie B. Mikels, annuitant, Newark, Essex Co.; legacy; one- third her residuary estate; Lathrop Anderson, executor Mrs. Elizabeth Hughes Tatler, Trenton, Mercer Co.; mem- ber of Fund; legacy	3,069 20
Total		\$7,716 92

NEW LEGISLATION

Chapter 81, Laws of 1919, repeals the compulsory membership provision of the Teachers' Retirement Fund and permits members to withdraw therefrom, which practically terminates the career of this Fund, though it may take a year or more to wind up its business. The payment of Retirement Fund annuities and State pensions granted prior to September 1, 1919, is guaranteed by Chapter 80, Laws of 1919, which creates a new Pension and Annuity system for the public school teachers of the State of New Jersey, and became operative September 1, 1919. Presumably, the present Teachers' Retirement Fund and Thirty-five-years-service State pension will be merged in the new system.

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RECEIPTS AND DISBURSEMENTS YEAR BY YEAR FROM BEGINNING TO JUNE 30, 1919, COMPILED FROM STATE TREASURER'S ANNUAL REPORTS.

The following Tables show by fiscal years: (I) The amount of Receipts and from what sources derived; (II) The amount of Disbursements, and for what purposes expended.

TABLE I.—RECEIPTS FROM BEGINNING TO JUNE 30, 1919, COMPILED FROM STATE TREASURER'S ANNUAL REPORTS.

Fiscal Year.	Members' Dues.	Interest.	Annuity Account.	Entertainments, Donations, Legacies, Duplicate Certificates, etc.	Investments Paid off.	Total Receipts.	Fiscal Year.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1896-'97	\$9,835 95	.....	.....	\$1,875 35	.....	\$11,211 30	1896-'97
1897-'98	14,379 12	.....	.....	297 00	.....	14,676 12	1897-'98
1898-'99	14,522 13	\$608 22	.....	.....	.....	15,130 35	1898-'99
1899-'00	13,181 60	1,109 36	.....	6,799 23	\$8,000 00	29,090 19	1899-'00
1900-'01	15,852 77	1,706 00	.....	3,195 40	.....	20,753 17	1900-'01
1901-'02	16,006 67	1,833 67	.....	2,412 04	.....	20,254 38	1901-'02
1902-'03	22,686 50	2,485 45	.....	3,265 80	.....	28,437 75	1902-'03
1903-'04	20,945 63	2,673 53	.....	2,853 36	.....	26,372 52	1903-'04
1904-'05	22,669 34	3,829 61	.....	2,793 13	.....	28,792 08	1904-'05
1905-'06	21,093 36	3,163 11	.....	10,501 51	.....	34,757 98	1905-'06
1906-'07	*35,095 19	4,258 15	.....	228 10	.....	39,581 44	1906-'07
1907-'08	52,523 48	3,842 85	.....	11 00	2,000 00	58,377 33	1907-'08
1908-'09	93,686 76	4,049 37	.....	6 00	.....	97,742 13	1908-'09
1909-'10	147,901 36	4,167 77	\$12 38	6 00	.....	152,087 51	1909-'10
1910-'11	166,138 27	8,670 31	.....	2 00	2,000 00	176,810 58	1910-'11
1911-'12	182,339 85	10,167 76	57 25	21 00	3,000 00	196,585 86	1911-'12
1912-'13	181,692 76	14,651 63	.....	554 04	1,000 00	197,898 43	1912-'13
1913-'14	216,888 14	15,014 61	.....	21 00	500 00	232,423 75	1913-'14
1914-'15	218,523 05	16,192 55	653 62	516 00	10,500 00	246,390 22	1914-'15
1915-'16	246,164 47	17,811 19	139 20	14 00	14,500 00	278,628 86	1915-'16
1916-'17	254,908 12	17,245 55	719 54	4,080 20	37,000 00	313,953 41	1916-'17
1917-'18	‡259,464 67	17,343 32	726 75	9 00	22,500 00	‡300,043 74	1917-'18
1918-'19	273,650 86	25,851 50	192 14	8 00	51,750 00	351,452 50	1918-'19
Totals.†	\$2,500,052 05	\$176,174 51	‡2,505 68	\$3,896 16	\$152,750 00	‡2,870,451 60	Totals

*Col. 2.—The advanced rates of dues under the Acts of 1906 and 1907 first show in the receipts for 1906-'07.

†Col. 4.—Annuities repaid to Fund on account of decease, overpayment, etc.

‡It is estimated that at least \$12,099.11 members' dues were receivable on June 30, 1918.

SCHOOL REPORT.

TABLE II—DISBURSEMENTS FROM BEGINNING TO JUNE 30, 1919, WITH ASSETS AT END OF EACH FISCAL YEAR, COMPILED FROM STATE TREASURER'S ANNUAL REPORTS.

Fiscal Year.	(1)	Annuities.	(2)	Rebates.	(3)	Dues Deducted in Error and Re-funded.	(4)	Administrative Expenses.	(5)	Investments.	(6)	Legal, Invest-ment and Miscellaneous Expenses.	(7)	Premium and Accrued Interest on Investments.	(8)	Total Dis-bursements.	(9)	Assets End of Year.	(10)	Fiscal Year.	(11)
1896-'97								\$1,024 01								\$1,024 01		\$10,187 29		1896-'97	
1897-'98		8879 01						1,381 22								2,305 23		22,603 12		1897-'98	
1898-'99		2,053 85						1,449 44		28,000 00						11,607 68		24,156 34		1898-'99	
1899-'00		5,867 18						1,631 27		37,000 00						44,548 45		47,667 62		1899-'00	
1900-'01		8,190 83						1,772 64								9,963 52		53,467 28		1900-'01	
1901-'02		12,975 62						1,782 65		18,500 00						22,358 32		62,853 39		1901-'02	
1902-'03		14,865 45						1,892 15								16,946 33		74,222 31		1902-'03	
1903-'04		19,174 50						1,603 54		20,000 00						20,942 86		79,751 97		1903-'04	
1904-'05		22,166 97						1,523 27								23,820 31		84,723 24		1904-'05	
1905-'06		27,840 09						1,611 93		15,000 00						44,060 11		90,421 11		1905-'06	
1906-'07		35,624 55						1652 14								36,282 53		93,808 72		1906-'07	
1907-'08		63,473 22								3,000 00		\$1,160 08				67,760 45		96,286 60		1907-'08	
1908-'09		64,068 17										\$404 85				64,621 51		133,264 22		1908-'09	
1909-'10		86,648 81						33 60		45,250 00						132,052 24		134,941 49		1909-'10	
1910-'11		111,733 63								50,000 00						163,264 37		256,167 70		1910-'11	
1911-'12		121,640 97								66,000 00						202,730 06		312,013 50		1911-'12	
1912-'13		154,354 76										1 00				154,355 76		356,296 73		1912-'13	
1913-'14		132,494 50								25,000 00						206,763 32		403,467 15		1913-'14	
1914-'15		206,946 92								14,000 00						221,163 23		422,193 55		1914-'15	
1915-'16		230,290 13								18,500 00						248,502 48		465,209 62		1915-'16	
1916-'17		266,542 67								25,000 00						293,015 32		494,247 52		1916-'17	
1917-'18		374,451 73								135,064 70						412,454 22		495,001 64		1917-'18	
1918-'19		292,373 92								103,707 72						396,082 40		499,524 45		1918-'19	
Totals..		\$2,197,008 68						\$16,306 86		\$632,623 42			\$133,820 26		\$7,741 83	\$2,810,799 56		\$2,489,524 45		Totals	

to pay administrative expenses became available November 1, 1908. All administrative expenses charged in account of liabilities previously incurred.

and \$664.90 are legal expenses, taxes, etc., on the Arrive H. Phillips loan, foreclosed.

ANNUITY RECORD YEAR BY YEAR FROM THE BEGINNING TO JUNE 30, 1919.

The following table shows for each fiscal year from the beginning to June 30, 1918: (1) Number of annuities granted; (2) Total annual value; (3) Average annual value; (4) Average age on date annuity began to accrue; (5) Average period of service, including private school; (6) Number of deceases; (7) Total annual value of deceased annuities; (8) Average annual value; (9) Average age at date of decease; (10) Period decedents drew annuity; (11) Number of annuities living and in force on June 30 of each year; (12) Total annual value of living annuities; (13) Average annual value. (*Col. 6 includes one annuitant, \$312.80, who resumed teaching April 6, 1914, and another, \$297.60, who resumed November 5, 1917; annuity payment suspended.

Years.	Number, Total and Average Annual Values of Annuities Granted.			Average Age on Date Annuity Began to Accrue.		Average Period of Service Including Private School.		DECEASES (INCLUDING TWO ANNUITANTS WHO RESUMED TEACHING).										Annuities in Force at End of Each Fiscal Year.			Years.
	(1)	(2)	(3)	Years.		Months.		Number.	Total Annual Value.		Average Annual Value.		Average Age at Date of Decease.		Average Period Drew Annuity.		Number.	Total Annual Value.	Average Annual Value.		
				(4)	(5)	(6)	(7)		(8)	(9)	(10)	(11)	(12)	(13)							
1897-'98	8	\$2,669 92	\$333 74	59—4	35—11	1	\$247 48	\$247 48	65	—0	0	—4	—19	7	\$2,422 44	\$346 06	1897-'98				
1898-'99	10	3,012 96	301 29	58—8	33—10	0	.....	.....	0	—0	—0	—0	—0	17	5,435 40	319 72	1898-'99		
1899-'00	12	3,162 08	263 50	56—2	31—4	1	247 48	247 48	57	—0	—24	—10	—24	28	8,350 00	298 21	1899-'00				
1900-'01	12	3,813 84	317 82	52—4	33—1	5	1,451 52	290 30	55	—0	—20	—3	—20	35	10,712 32	306 06	1900-'01				
1901-'02	10	3,073 84	307 38	53—4	25—5	3	888 48	296 16	51	—8	—22	—8	—22	42	12,897 68	307 08	1901-'02				
1902-'03	17	5,845 16	343 83	59—1	33—3	5	1,896 80	379 16	63	—7	—8	—10	—8	54	16,847 04	311 98	1902-'03				
1903-'04	18	5,625 76	312 54	57—3	31—6	4	1,410 72	352 68	63	—9	—3	—5	—3	63	21,062 08	309 73	1903-'04				
1904-'05	19	6,467 40	340 38	55—10	27—10	4	1,228 52	307 13	67	—9	—1	—10	—1	83	26,300 96	316 87	1904-'05				
1905-'06	22	7,149 00	324 95	59—5	35—10	3	1,014 72	338 24	62	—9	—1	—10	—10	92	32,435 24	352 55	1905-'06				
1906-'07	40	14,830 16	370 75	56—7	35—6	5	2,088 88	417 77	62	—9	—5	—5	—20	137	45,176 42	329 75	1906-'07				
1907-'08	35	16,525 24	472 14	60—9	37—2	12	4,181 68	348 47	62	—9	—11	—25	—25	160	57,520 08	359 50	1907-'08				
1908-'09	33	15,650 00	474 24	57—8	36—5	11	4,389 76	399 06	63	—2	—7	—9	—9	182	68,780 32	377 91	1908-'09				
1909-'10	74	34,105 44	460 88	55—8	33—7	8	2,707 52	338 44	56	—3	—9	—1	—1	248	100,178 12	403 94	1909-'10				
1910-'11	51	23,945 16	469 51	57—7	34—10	6	3,464 04	577 34	64	—4	—0	—3	—3	293	120,673 64	411 85	1910-'11				
1911-'12	54	26,866 80	479 01	55—7	33—8	9	4,001 84	444 64	67	—0	—26	—0	—26	338	142,498 68	421 59	1911-'12				
1912-'13	63	32,570 56	516 99	58—3	34—3	19	7,427 56	390 92	64	—10	—3	—9	—9	382	167,681 72	438 96	1912-'13				
1913-'14	71	36,291 08	511 14	58—3	35—9	*14	6,522 28	465 88	64	—6	—6	—6	—29	439	197,450 52	449 77	1913-'14				
1914-'15	49	26,187 32	534 43	57—1	34—9	15	6,645 88	443 06	67	—6	—4	—6	—4	473	216,991 96	458 76	1914-'15				
1915-'16	74	40,439 52	546 48	59—2	38—3	27	14,504 40	537 20	65	—7	—3	—3	—17	520	242,912 68	467 14	1915-'16				
1916-'17	58	33,339 28	574 81	59—0	36—5	20	9,102 08	445 10	66	—11	—1	—10	—19	553	267,149 84	478 76	1916-'17				
1917-'18	48	26,983 24	562 15	60—2	37—8	*19	*9,116 16	479 79	67	—11	—5	—6	—24	587	284,405 50	484 50	1917-'18				
1918-'19	43	24,460 14	563 84	58—1	35—0	20	9,317 76	465 88	68	—11	—5	—10	—10	612	300,770 70	491 45	1918-'19				
Totals.....	821	\$392,013 86		47,192Y—4M—17D	28,807Y—10M—3D	*209	13,622Y—11M—6D	1,024Y—11M—19D	
Averages.		477 48		57Y—5M—27D	35Y—1M—1D	65Y—2M—5D	4Y—10M—25D	

SCHOOL REPORT.

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Vice-President—HON. BLOOMFIELD H. MINCH, of Bridgeton; Banker, former State Senator.

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MR. JAMES E. BRYAN, Superintendent, Camden Public Schools.

MR. WILLIAM J. FIELD, of Jersey City; Vice-President, Commercial Trust Company of New Jersey; Secretary, New Jersey Bankers' Association.

MR. JAMES FITZPATRICK, of Paterson.

MR. ALBERT MONCRIEF, Principal, School Number Twenty-five, Jersey City.

MISS S. EMILY POTTER, Vice-Principal, Washington Street School, Newark.

MR. ELIJAH D. RILEY, (retired,) of Absecon; appointed to fill vacancy caused by the death of Miss Elizabeth A. Allen.

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Document No. 52

R E P O R T
OF THE
BOARD OF SHELL FISHERIES

For the Year Ending June 30th, 1919

**Embracing the Annual Reports of the Board of Shell
Fisheries, comprising the Department of the
Maurice River Cove and the Department
of the Atlantic Coast**

STATE OF NEW JERSEY

REPORT

OF THE

Board of Shell Fisheries

For the Year ending June 30

1919

Embracing the Annual Reports of the Board of Shell
Fisheries, comprising the Department of the
Maurice River Cove, and the Depart-
ment of the Atlantic Coast.

TRENTON, N. J.
PUBLISHED BY THE STATE
1919

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REPORT

To the Honorable William N. Runyon, Governor:

The Board of Shell Fisheries, in presenting their Fifth Annual Report, and in reviewing the work of the past year, reports as follows:

While we have the good fortune to be warranted in reporting the industry in a very prosperous condition, we are confronted with a very serious situation as regards the future supply of seed oysters. This is a matter that is giving oyster growers a great deal of concern as this shortage appears to be nation wide. On the great seed-producing grounds of New York, Connecticut and Rhode Island, as well as our own State, there has not been a general set of oyster spat since 1916. We believe that in a great many localities, the failure to secure a catch of spat is due to the dumping of trade waste into our streams. This trade waste appears to be destroying all other fish life as well as shell fish and is becoming such a serious matter that it is only a question of a few years, if this practice is allowed to continue, when the fish life of our streams will all be destroyed. We would, therefore, recommend that legislation be enacted that would compel manufacturers to convert this trade waste into by-products which, we believe, is perfectly feasible and we have been informed by reliable authority that in many instances it would be a source of profit to the manufacturers themselves, not to mention the great benefit that would accrue to the county at large, but so long as they are allowed to dispose of it in this easy manner they have no concern whatever for those who are interested or engaged in the fisheries of our country, nor for the consuming public who are confronted with extremely high prices of every article of food, especially meats, for which sea food is used as a substitute, and unless there is some means adopted whereby this trade waste is diverted from our streams, the shell fish and all other fish that use bays, rivers and streams as spawning grounds will be destroyed.

We desire to call your attention to another matter which, we think, is very unjust and also contributes to the depletion and destruction of our shell fish beds and grounds. That is local politics and sentiment. If people should object to woodland being cleared for farms, towns and manufacturing sites, or marshes being re-claimed for these

purposes, under the claim that it prevented them from hunting game or cutting trees and grass or gathering berries which grew natural, they would be branded as lunatics and the improvement would be made regardless of this political or sentimental influence. Not so with the shell-fish industry. In 1915 a law was passed which is known as Chapter 378. Section 1 of this act reads as follows: "A department of Shell Fisheries is hereby established and the same shall be governed by a board to be known as the 'Board of Shell Fisheries.'" Section 2 provides that the Board of Shell Fisheries shall be non-partisan; that they shall be men engaged in the business and from shell fish producing counties, or, in other words, men who know the business they are called upon to supervise and control, they being practical oystermen. Section 3 provides that they shall meet in Trenton once each month and wherever and whenever business of the Department requires their attention and that they serve without compensation for their services. Section 7 provides that the Board of Shell Fisheries shall have full control and direction of the shell fish industry and of the protection of shell fish throughout the entire State. It shall make such rules and regulations as, in its opinion, may be necessary for the preservation and improvement of the shell fish industry in the State.

In order to improve, conserve and develop the industry, the members of the Board of Shell Fisheries have given of their time for a careful inspection of various parts of depleted shell fish beds and grounds in various parts of the State where politics, sentiment, trade waste and possibly other contributing causes have practically destroyed the productiveness of the said beds and grounds. After having made the sacrifices which they have, by giving of their time with no other object in view except to build up the industry by bringing back to a state of productiveness these once productive beds and grounds, they have recommended, and in several instances been instrumental in securing, legislation for that purpose. But we are confronted with certain political and sentimental influences and as practical men, who have watched the general state and country-wide depletion and in some localities, through wise legislation and enforcement of the same, the reclamation of these beds and grounds, we desire to give warning that if these influences are allowed to control legislation, it means not only further depletion but extermination of a once valuable industry in all the tidal waters of our State.

In an effort to solve the seed oyster problem, the Federal Government is cooperating with some of the States by placing Biologists in

the field who are making a very careful study of the spawn, the time of spawning, development of the same under the various climatic changes and the possibility of developing the larva where it can be protected from the many dangers which destroy it if left to nature's care. Our State is making some effort along this line through the Agricultural Experiment Station. We believe this to be an effort in the right direction and would suggest that there be greater assistance given so that the Biologist may give his entire time and attention to this valuable work. Also, that he be allowed to establish at least three observation stations in different parts of the State where he could train young men in the work who have a practical knowledge of the industry. We believe this would result in great benefit to the industry by helping in solving the problem of seed production.

The scallop industry of some of the New England States is a very valuable industry and furnishes a limited quantity of a very delicious article of food, but because of the demand and growing scarcity of the scallop, those who gather them as a means of obtaining a livelihood are fast depleting the natural scallop beds and grounds in those States. We have flats of a like nature in our State which, in the aggregate, would probably cover an area of from 15,000 to 20,000 acres. The Director has been in close touch with some and in communication with a number of other persons of the scallop producing states and all assure him that these flats of our State, which are covered with a long grass and apparently useful for no other purpose, are ideal grounds for scallop propagation, and if this can be accomplished there is a possibility of adding an increased valuation of from one-fifth to one-fourth to the shell fish industry of our State. We have procured a quantity of scallops for the purpose of making the experiment as to whether they will live in our shallow waters during the winter and if this experiment proves successful, we anticipate putting out a much larger quantity in the spring for an experiment in spawning and propagating the same.

BOARD OF SHELL FISHERIES.

LEASES AND LICENSES ISSUED

	Number of Acres	Feet	Number of Licenses
Oyster Bed Leases, Div. of Atlantic County.....	878.69	7,050	
Oyster Bed Leases, Div. of Burlington, Ocean and Monmouth Counties	4,203.75	7,200	.
Oyster Bed Leases, Dept. of the Maurice River Cove	27,561.00		
Tongers' Licenses, Div. of Atlantic County.....			103
Tongers' Licenses, Dept. of the Maurice River Cove			241
Tongers' Licenses, Div. of Burlington, Ocean and Monmouth Counties			294
Boat Licenses, Div. of Burlington, Ocean and Mon- mouth Counties			4
Boat Licenses, Dept. of the Maurice River Cove..			212
Totals	32,645.44	14,250	854

TOTAL RECEIPTS FROM LICENSES, LEASES, ETC.

Division of Atlantic County	\$1,661.75
Division of Burlington, Ocean and Monmouth Counties.....	5,801.25
Department of the Maurice River Cove.....	22,297.00
	<u>\$29,760.00</u>

RECAPITULATION

Total Acreage Leased	32,645.44	14,250 feet
Total Licenses Issued	854	
Total Receipts	\$29,760.00	

BOAT LICENSES
Department of the Atlantic Coast
Division of Burlington, Ocean and Monmouth Counties

No. of License	Master	Address	Kind and Name of Boat	Tonnage	Date	Term	Amount
3	Maurers, William	Keyport	G. P. Sabrina	14	1918 7-8	1 yr.	\$21 00
4	Post, Russell B.	Keyport	G. P. L. J. Callahan	7	7-8	1 yr.	10 50
1	Woolley, William E.	Keyport	G. P. Alonzo B. Smith	18	7-8	1 yr.	27 00
2	Woolley, William E.	Keyport	No. 1, 2, 3 Skiffs	under	7-8	1 yr.	15 00

TONGERS' LICENSES

**Department of the Atlantic Coast—Division of Burlington, Ocean
and Monmouth Counties**

No. of License	Master	Address	Tonging	Date	Term	Amount
383	Anderson, Joel	Port Monmouth	Tonging	7-3-18	1 yr.	\$5 00
384	Ansbrov, John	Keyport	Tonging	7-3-18	1 yr.	5 00
397	August, Blussenbors	Perth Amboy	Tonging	7-11-18	1 yr.	5 00
516	Andrews, John C.	Leonardo	Tonging	12-31-18	1 yr.	5 00
445	Allen, Winfield	New Gretna	Tonging	4-30-19	1 yr.	2 50
446	Allen, Walter S.	Tuckerton	Tonging	4-30-19	1 yr.	2 50
450	Allen, U. G.	New Gretna	Tonging	5-1-19	1 yr.	2 50
456	Allen, Chester	New Gretna	Tonging	5-1-19	1 yr.	2 50
461	Allen, Roy	New Gretna	Tonging	5-1-19	1 yr.	2 50
411	Allen, Charles	New Gretna	Tonging	4-23-19	1 yr.	2 50
705	Ansbrov, Peter I.	Keyport	Tonging	6-5-19	1 yr.	5 00
587	Applegate, George	Belford	Tonging	6-2-19	1 yr.	5 00
664	Anderson, James C.	Highlands	Tonging	5-21-19	1 yr.	5 00
645	Alwater, Moses	Highlands	Tonging	5-17-19	1 yr.	5 00
618	Anderson, Andrews	Highlands	Tonging	5-10-19	1 yr.	5 00
516	Andrews, John C.	Leonardo	Tonging	3-25-19	1 yr.	5 00
511	Anderson, James	Leonardo	Tonging	3-25-19	1 yr.	5 00
471	Ansbrov, John	Highlands	Tonging	4-18-19	1 yr.	5 00
401	Boyle, Thomas	Keyport	Tonging	7-3-18	1 yr.	5 00
408	Boyce, John	Belford	Tonging	7-16-18	1 yr.	5 00
418	Bockel, William	Locust	Tonging	8-30-18	1 yr.	5 00
501	Burlew, James A.	Port Monmouth	Tonging	2-20-19	1 yr.	5 00
503	Burlew, John W.	Belford	Tonging	3-21-19	1 yr.	5 00
521	Bloom, Ernest	Leonardo	Tonging	3-25-19	1 yr.	5 00
533	Bogle, Lewis	Locust	Tonging	3-26-19	1 yr.	5 00
534	Bogle, William	Locust	Tonging	3-26-19	1 yr.	5 00
648	Branson, Henry	Belford	Tonging	3-26-19	1 yr.	5 00
651	Burkenburg, George	Keansburg	Tonging	5-19-19	1 yr.	5 00
404	Bunnell, Martin	Lanoka	Tonging	5-23-19	1 yr.	5 00
588	Blackford, Timothy	Highlands	Tonging	4-22-19	1 yr.	5 00
594	Baldwin, Elmer	Highlands	Tonging	4-22-19	1 yr.	5 00
641	Baldwin, Robert	Highlands	Tonging	5-17-19	1 yr.	5 00
642	Brosble, H. A.	Port Monmouth	Tonging	5-17-19	1 yr.	5 00
455	Brown, C. J.	Tuckerton	Tonging	5-1-19	1 yr.	2 50
586	Bush, William	Highlands	Tonging	4-22-19	1 yr.	5 00
372	Bunnell, John	Lanoka	Tonging	11-30-18	1 yr.	2 50
670	Benkert, Edward	Highlands	Tonging	5 19-19	1 yr.	5 00
669	Burlew, Robert	Port Monmouth	Tonging	5-23-19	1 yr.	5 00
668	Bennett, W. H.	Keyport	Tonging	5-23-19	1 yr.	5 00
674	Bailey, John	Highlands	Tonging	5-28-19	1 yr.	5 00
552	Board, Karlson	Highlands	Tonging	4-1-19	1 yr.	5 00
558	Bogart, Adolph	Leonardo	Tonging	4-10-19	1 yr.	5 00
593	Burg, Arthur	Highlands	Tonging	4-22-19	1 yr.	5 00
611	Burkness, Martin	Leonardo	Tonging	5-5-19	1 yr.	5 00
635	Borden, Randolph	Highlands	Tonging	5-14-19	1 yr.	5 00
426	Bockel, Louis	Locust	Tonging	8-30-18	1 yr.	5 00
452	Bennett, William	Great Egg Harbor	Tonging	5-1-19	1 yr.	2 50
516	Baldwin, Elmer	Highlands	Tonging	7-17-18	1 yr.	5 00
522	Burlew, James	Highlands	Tonging	5-12-18	1 yr.	5 00
519	Bailey, Daniel	Highlands	Tonging	5-13-18	1 yr.	5 00
386	Crosby, H. A.	Port Monmouth	Tonging	7-3-18	1 yr.	5 00
508	Copp, David H.	Port Monmouth	Tonging	3-25-18	1 yr.	5 00
507	Cowhart, Sylvannus	Port Monmouth	Tonging	3-25-18	1 yr.	5 00
363	Chamberlain, Charles	Lanoka	Tonging	10-9-18	1 yr.	2 50
364	Chamberlain, Theodore	Lanoka	Tonging	10-9-18	1 yr.	2 50
367	Corwin, Fred	Toms River	Tonging	10-16-18	1 yr.	2 50
365	Clayton, Walter	Bayville	Tonging	10-9-18	1 yr.	2 50
409	Cranmer, Clarence	Bayville	Tonging	5-1-18	1 yr.	2 50
414	Cornellus, James W.	Bayville	Tonging	5-14-18	1 yr.	2 50
412	Cranmer, Oliver	West Creek	Tonging	4-28-18	1 yr.	2 50
422	Cranmer, Arnold	New Gretna	Tonging	5-29-18	1 yr.	2 50
444	Cranmer, Doughty	New Gretna	Tonging	4-30-18	1 yr.	2 50
448	Cranmer, Ernest G.	New Gretna	Tonging	4-30-18	1 yr.	2 50
467	Cranmer, Joseph W.	West Creek	Tonging	5-1-18	1 yr.	2 50
468	Cranmer, Samuel R.	West Creek	Tonging	5-1-18	1 yr.	2 50
471	Cranmer, Arthur	New Gretna	Tonging	5-1-18	1 yr.	2 50
472	Cranmer, Leroy	New Gretna	Tonging	5-1-18	1 yr.	2 50
549	Callen, Harvey	Perth Amboy	Tonging	5-1-18	1 yr.	5 00
585	Card, George	Highlands	Tonging	4-22-18	1 yr.	5 00
453	Cox, William	Tuckerton	Tonging	5-1-18	1 yr.	2 50
454	Cox, Harry	Tuckerton	Tonging	5-1-18	1 yr.	2 50

TONGERS' LICENSES
DEPARTMENT OF THE ATLANTIC COAST
DIVISION OF BURLINGTON, OCEAN AND MONMOUTH COUNTIES
—Continued

No. of License	Master	Address	Tonging	Date	Term	Amount
455	Cranmer, Harry	Staffordville	Tonging	4-1-18	1 yr.	\$2 50
577	Casler, W. C.	Highlands	Tonging	4-22-18	1 yr.	5 00
404	Devey, S. A.	Highlands	Tonging	7-13-18	1 yr.	5 00
409	Decker, Martaves	Hoboken	Tonging	7-16-18	1 yr.	5 00
410	Douglas, Stephen	Port Monmouth	Tonging	8-12-18	1 yr.	5 00
417	Downs, William, Jr.	Port Monmouth	Tonging	8-17-18	1 yr.	5 00
416	Downs, William E.	Port Monmouth	Tonging	8-14-18	1 yr.	5 00
510	Degroote, Henry	Port Monmouth	Tonging	2-25-19	1 yr.	5 00
511	Degroote, Henry, Jr.	Port Monmouth	Tonging	2-25-19	1 yr.	5 00
402	Ditton, George	Lanoka	Tonging	3-26-19	1 yr.	2 50
606	Downs, John	Port Monmouth	Tonging	5-23-19	1 yr.	5 00
548	Decker, Martevious	Perth Amboy	Tonging	4-1-19	1 yr.	5 00
658	Duyes, Gerard	Keansburg	Tonging	5-19-19	1 yr.	5 00
657	Dunagan, James	Plainfield	Tonging	5-19-19	1 yr.	5 00
654	Downs, Joseph	Port Monmouth	Tonging	8-12-18	1 yr.	5 00
400	Errickson, John	Hoboken	Tonging	7-12-18	1 yr.	5 00
615	Edwards, John L.	Belford	Tonging	5-9-19	1 yr.	5 00
608	Elson, John	Red Bank	Tonging	5-5-19	1 yr.	5 00
617	Eloertson, Tarval	Highlands	Tonging	5-10-19	1 yr.	5 00
392	Foster, S. A.	Leonardo	Tonging	7-8-18	1 yr.	5 00
370	Fisk, Horace	Tuckerton	Tonging	11-2-18	1 yr.	2 50
652	Foster, C. D.	Highlands	Tonging	5-19-19	1 yr.	5 00
578	Foster, Thomas	Highlands	Tonging	4-12-19	1 yr.	5 00
597	Flitnick, Felix	Leonardo	Tonging	4-10-19	1 yr.	5 00
557	Foster, Stephen	Highlands	Tonging	4-12-19	1 yr.	5 00
550	Fox, Bernard	Perth Amboy	Tonging	5-5-19	1 yr.	5 00
621	Fay, John	Highlands	Tonging	5-10-19	1 yr.	5 00
387	Glorache, Joseph	Belford	Tonging	7-3-18	1 yr.	5 00
519	Guttormesen, B. F.	Leonardo	Tonging	3-25-19	1 yr.	5 00
536	Green, Frank	Highlands	Tonging	3-26-19	1 yr.	5 00
405	Grant, John	Lanoka	Tonging	3-26-19	1 yr.	5 00
406	Gilbert, H. G.	Forked River	Tonging	4-17-19	1 yr.	5 00
410	Grant, Jesse	Lanoka	Tonging	5-1-19	1 yr.	5 00
424	Grey, John A.	New Gretna	Tonging	4-30-19	1 yr.	5 00
425	Grey, Franklin	New Gretna	Tonging	4-30-19	1 yr.	5 00
443	Gaskill, Samuel	Tuckerton	Tonging	4-30-19	1 yr.	2 50
551	Goldman, William	Port Monmouth	Tonging	4-5-19	1 yr.	5 00
554	Gilbert, William	Keyport	Tonging	4-7-19	1 yr.	5 00
509	Gelse, Frederick	Belford	Tonging	5-5-19	1 yr.	5 00
382	Haff, Stephen	Keyport	Tonging	7-3-18	1 yr.	5 00
385	Heyer, William	Keyport	Tonging	7-3-18	1 yr.	5 00
396	Hancock, W. W.	Port Monmouth	Tonging	7-8-18	1 yr.	5 00
407	Hill, Charles	Keyport	Tonging	7-16-18	1 yr.	5 00
520	Haulbroskey, Walter	Leonardo	Tonging	12-31-18	1 yr.	5 00
540	Hardenbrook, Samuel	Fair Haven	Tonging	3-28-19	1 yr.	5 00
649	Hassen, Joseph	Highlands	Tonging	5-10-19	1 yr.	5 00
421	Horner, Charles	Parkertown	Tonging	4-23-19	1 yr.	5 00
683	Hancock, Wilbur	Port Monmouth	Tonnage	5-20-19	1 yr.	5 00
673	Havens, Edward	Cliffwood	Tonging	5-23-19	1 yr.	2 50
671	Hartsgrove, Arcemus	Highlands	Tonging	5-23-19	1 yr.	5 00
672	Hartsgrove, A. C.	Highlands	Tonging	5-23-19	1 yr.	3 00
366	Hyers, Eliza	Island Heights	Tonging	10-14-18	1 yr.	2 50
470	Hickman, George	Highlands	Tonging	4-22-18	1 yr.	2 50
595	Hartsgrove, George	Highlands	Tonging	4-28-18	1 yr.	5 00
590	Harvey, Frank E.	Fair Haven	Tonging	4-28-18	1 yr.	5 00
602	Heyer, Charles, Sr.	Keyport	Tonging	5-2-18	1 yr.	5 00
603	Heyer, Charles, Jr.	Keyport	Tonging	5-2-18	1 yr.	5 00
604	Heyer, Deamon	Keyport	Tonging	5-2-19	1 yr.	5 00
252	James, William	Leonardo	Tonging	3-25-19	1 yr.	5 00
647	Johnson, Tobias	Highlands	Tonging	5-17-19	1 yr.	5 00
587	Johnson, H. A.	Red Bank	Tonging	4-22-19	1 yr.	5 00
606	Jackson, Eliza M.	Highlands	Tonging	4-22-19	1 yr.	5 00
607	Jackson, Adolph	Highlands	Tonging	5-3-19	1 yr.	5 00
620	Johnson, Arthur	Highlands	Tonging	5-10-19	1 yr.	5 00
542	Johnson, Jalmer H.	Perth Amboy	Tonging	3-28-19	1 yr.	5 00
543	Johnson, Ragnwald	Perth Amboy	Tonging	3-28-19	1 yr.	5 00
556	Johnson, M. J.	Red Bank	Tonging	10-9-18	1 yr.	5 00
557	Johnson, A.	Highlands	Tonging	4-11-19	1 yr.	5 00
390	Kollyorsen, Thomas	Highlands	Tonging	7-6-18	1 yr.	5 00
526	Karpin, Nicholas	Leonardo	Tonging	3-25-18	1 yr.	5 00
527	Kendisla, Frank	Leonardo	Tonging	3-25-19	1 yr.	5 00

TONGERS' LICENSES
DEPARTMENT OF THE ATLANTIC COAST
DIVISION OF BURLINGTON, OCEAN AND MONMOUTH COUNTIES
—Continued

No. of License	Master	Address	Tonging	Date	Term	Amount
530	Kanalyhe, Standelaw	Leonardo	Tonging	8-25-19	1 yr.	\$5 00
427	Kelly, James E.	West Creek	Tonging	4-30-19	1 yr.	2 50
451	Kelly, H. F.	West Creek	Tonging	4-30-19	1 yr.	2 50
429	Wynne, Kelly	Tuckerton	Tonging	4-30-19	1 yr.	2 50
583	Kipp, Elmer	Highlands	Tonging	4-30-19	1 yr.	5 00
562	Klusendorf, August	Perth Amboy	Tonging	4-12-19	1 yr.	5 00
527	Kendsin, Frank	Leonardo	Tonging	12-31-18	1 yr.	5 00
509	Layton, John P.	Highlands	Tonging	4-2-19	1 yr.	5 00
575	Layton Charles	Highlands	Tonging	4-12-19	1 yr.	5 00
500	Little, Henry D.	Red Bank	Tonging	12-30-18	1 yr.	5 00
514	Luker, James	Belford	Tonging	8-12-18	1 yr.	5 00
423	Layton, Gilbert	Highlands	Tonging	8-28-18	1 yr.	5 00
505	Lopachuk, Nicholas	Keyport	Tonging	3-24-19	1 yr.	5 00
401	McCarty, Timothy	Lanoka	Tonging	3-25-19	1 yr.	2 50
428	Mathis, Floyd	New Gretna	Tonging	4-30-19	1 yr.	2 50
437	Marshall, Noah	Tuckerton	Tonging	4-30-19	1 yr.	2 50
438	Marshall, James	Tuckerton	Tonging	4-30-19	1 yr.	2 50
439	Marshall, George R.	Tuckerton	Tonging	4-30-19	1 yr.	2 50
612	Morrell, John	Keyport	Tonging	5-5-19	1 yr.	5 00
613	Morrell, George	Matawan	Tonging	5-8-19	1 yr.	5 00
632	Minton, R. W.	Fair Haven	Tonging	5-14-19	1 yr.	5 00
637	Mathews, John	Highlands	Tonging	5-14-19	1 yr.	5 00
647	McNeill, Joseph	New Gretna	Tonging	5-1-19	1 yr.	2 50
422	Mitten, John	Fair Haven	Tonging	8-28-18	1 yr.	5 00
578	Mathews, George	Highlands	Tonging	8-27-18	1 yr.	5 00
579	Mason, C. H.	Perth Amboy	Tonging	5-19-19	1 yr.	5 00
582	Morrell, Thomas	Highlands	Tonging	5-16-19	1 yr.	5 00
524	Larsen, Thomas	Leonardo	Tonging	3-25-19	1 yr.	5 00
538	Larsen, Lars	Highlands	Tonging	3-26-19	1 yr.	5 00
403	Lane, Frank	Lanoka	Tonging	3-26-19	1 yr.	2 50
449	Loveland, William T.	New Gretna	Tonging	4-30-19	1 yr.	2 50
458	Leeds, Larner	Leeds Point	Tonging	5-1-19	1 yr.	2 50
459	Leeds, Robert K.	Leeds Point	Tonging	5-1-19	1 yr.	2 50
462	Leeds, Lewis P.	Leeds Point	Tonging	5-1-19	1 yr.	2 50
676	Mitten, George	Fair Haven	Tonging	5-28-19	1 yr.	5 00
582	Mason, Robert W.	Port Monmouth	Tonging	4-17-19	1 yr.	5 00
395	Morrell, William	Belford	Tonging	7-8-18	1 yr.	5 00
430	Mount, Grover	Highlands	Tonging	8-30-18	1 yr.	5 00
481	Mathews, Thomas	Highlands	Tonging	9-11-18	1 yr.	5 00
436	Mathews, Edward	Highlands	Tonging	9-10-18	1 yr.	5 00
502	Morrell, W. F.	Keyport	Tonging	3-31-18	1 yr.	5 00
898	Newman, Elisha	Keyport	Tonging	7-11-18	1 yr.	5 00
408	Neilson, Samuel	Perth Amboy	Tonging	7-13-18	1 yr.	5 00
523	Nelson, Martin	Leonardo	Tonging	8-25-19	1 yr.	5 00
589	Norcross, Thomas	Highlands	Tonging	4-22-19	1 yr.	5 00
581	Neil, O. M.	Highlands	Tonging	4-22-19	1 yr.	5 00
586	Newman, Charles	Highlands	Tonging	5-10-19	1 yr.	5 00
524	Nelson, Samuel	Highlands	Tonging	5-10-19	1 yr.	5 00
391	Oscarblad, Karl	Highlands	Tonging	7-6-18	1 yr.	5 00
529	Osage, Kanstant	Leonardo	Tonging	8-25-19	1 yr.	5 00
531	Osage, W.	Leonardo	Tonging	8-25-19	1 yr.	5 00
532	Osage, Michael	Leonardo	Tonging	3-25-19	1 yr.	5 00
626	Olsen, Hans	Highlands	Tonging	5-10-19	1 yr.	5 00
627	Olsen, John	Highlands	Tonging	5-10-19	1 yr.	5 00
411	Phillips, John F.	Port Monmouth	Tonging	8-12-18	1 yr.	5 00
412	Phillips, William	Port Monmouth	Tonging	8-12-18	1 yr.	5 00
413	Phillips, Reuben	Belford	Tonging	8-12-18	1 yr.	5 00
399	Phillips, Randolph	Forked River	Tonging	10-7-18	1 yr.	2 50
513	Phillips, W. E.	Port Monmouth	Tonging	3-25-19	1 yr.	5 00
514	Phillips, John, Jr.	Port Monmouth	Tonging	3-25-19	1 yr.	5 00
430	Parker, Alex.	Tuckerton	Tonging	4-30-19	1 yr.	2 50
440	Parker, Calvin	Tuckerton	Tonging	4-30-19	1 yr.	2 50
441	Parker, W. C.	Tuckerton	Tonging	4-30-19	1 yr.	2 50
443	Parker, S. B.	Tuckerton	Tonging	4-30-19	1 yr.	2 50
457	Pullen, Barnilla	Tuckerton	Tonging	4-30-19	1 yr.	2 50
508	Pryer, Frank	Red Bank	Tonging	4-30-19	1 yr.	5 00
572	Peterson, Benjamin	Highlands	Tonging	4-14-19	1 yr.	5 00
473	Parker, A. L.	Highlands	Tonging	5-10-19	1 yr.	5 00
407	Potter, Reuben	Bayville	Tonging	5-10-19	1 yr.	2 50
347	Potter, Phineas	Bayville	Tonging	5-10-19	1 yr.	2 50
406	Robertson, Wilson	Highlands	Tonging	7-13-18	1 yr.	5 00

TONGERS' LICENSES
DEPARTMENT OF THE ATLANTIC COAST
DIVISION OF BURLINGTON, OCEAN AND MONMOUTH COUNTIES
--Continued

No. of License	Master	Address	Tonging	Date	Term	Amount
425	Rogers, C. T.	Highlands	Tonging	7-29-18	1 yr.	\$5 00
596	Rhodes, W. S.	Red Bank	Tonging	4-26-19	1 yr.	5 00
606	Rutt, Charles H.	Port Monmouth	Tonging	5-2-19	1 yr.	5 00
559	Rutt, Charles E.	Port Monmouth	Tonging	5-2-19	1 yr.	5 00
560	Rhodes, Thomas	Red Bank	Tonging	4-14-19	1 yr.	5 00
427	Risley, William C.	Linwood	Tonging	4-30-19	1 yr.	2 50
624	Raynor, John	Highlands	Tonging	5-10-19	1 yr.	5 00
433	Smith, Michael	Highlands	Tonging	9-10-18	1 yr.	5 00
585	Snyder, William	Locust	Tonging	3-26-19	1 yr.	5 00
420	Smith, Joseph P.	Fair Haven	Tonging	8-28-18	1 yr.	5 00
421	Scott, J. R.	Fair Haven	Tonging	8-28-18	1 yr.	5 00
512	Smith, James H.	Belford	Tonging	3-25-19	1 yr.	5 00
513	Skisblock, Michael	Keyport	Tonging	4-29-19	1 yr.	5 00
537	Samuelson, John S.	Highlands	Tonging	3-25-19	1 yr.	5 00
655	Smith, Joseph	Jersey City	Tonging	5-10-19	1 yr.	5 00
675	Smith, F. R.	Fair Haven	Tonging	5-28-19	1 yr.	5 00
431	Sprague, Phillip	Tuckerton	Tonging	4-30-19	1 yr.	2 50
428	Sprague, Joel	Beach Haven	Tonging	4-30-19	1 yr.	2 50
432	Sprague, John	Tuckerton	Tonging	4-30-19	1 yr.	2 50
433	Sprague, Paul	Tuckerton	Tonging	4-30-19	1 yr.	2 50
434	Sprague, Edward	Tuckerton	Tonging	4-30-19	1 yr.	2 50
435	Sprague, Lewis	Tuckerton	Tonging	4-30-19	1 yr.	2 50
436	Sprague, Albert	Tuckerton	Tonging	4-30-19	1 yr.	2 50
676	Sager, George	Fair Haven	Tonging	5-21-19	1 yr.	5 00
447	Sapp, Walter H.	Tuckerton	Tonging	4-30-19	1 yr.	2 50
464	Speck, James	Tuckerton	Tonging	5-1-19	1 yr.	2 50
466	Speck, Harold	Tuckerton	Tonging	5-1-19	1 yr.	2 50
400	Sooy, Vernon	Leeds Point	Tonging	5-1-19	1 yr.	2 50
427	Smith, Lewis	Highlands	Tonging	8-30-18	1 yr.	5 00
537	Samuelson, Jack	Highlands	Tonging	3-26-19	1 yr.	5 00
629	Skinsky, Joseph	Belford	Tonging	5-10-19	1 yr.	5 00
630	Skinsky, Stephen	Belford	Tonging	5-10-19	1 yr.	5 00
633	Smith, Low	Fair Haven	Tonging	5-14-19	1 yr.	5 00
564	Sarensen, Edward	Jersey City	Tonging	4-12-19	1 yr.	5 00
565	Sarensen, Augustus	Jersey City	Tonging	4-10-19	1 yr.	5 00
566	Skislack, Andrew	Highlands	Tonging	4-11-19	1 yr.	5 00
637	Sarensen, A.	Highlands	Tonging	5-10-19	1 yr.	5 00
638	Suspinski, Joseph	Leonardo	Tonging	5-14-19	1 yr.	5 00
639	Smith, Anderson	Leonardo	Tonging	5-16-19	1 yr.	5 00
640	Smith, James R.	Leonardo	Tonging	5-16-19	1 yr.	5 00
641	Sarensen, Charles	Highlands	Tonging	4-9-19	1 yr.	5 00
644	Skislack, John	Highlands	Tonging	4-11-19	1 yr.	5 00
647	Skinsky, Andrew	Highlands	Tonging	4-12-19	1 yr.	5 00
539	Thompson, Kettel	Highlands	Tonging	3-25-18	1 yr.	5 00
389	Tellesfen, Charles	Leonardo	Tonging	7-5-18	1 yr.	5 00
394	Thompson, William	Belford	Tonging	7-8-18	1 yr.	5 00
563	Thaldorsen, Karl	Perth Amboy	Tonging	12-31-18	1 yr.	5 00
597	Truex, John S.	Keansburg	Tonging	4-22-19	1 yr.	5 00
598	Truex, William	Keansburg	Tonging	4-22-19	1 yr.	5 00
600	Tuttle, James	Red Bank	Tonging	4-28-19	1 yr.	5 00
614	Truex, Eleazor	Keyport	Tonging	4-28-19	1 yr.	5 00
616	Tucker, Joseph	Port Monmouth	Tonging	5-9-19	1 yr.	5 00
617	Tucker, Henry	Port Monmouth	Tonging	5-10-19	1 yr.	5 00
639	Theil, Frank	Belford	Tonging	5-10-19	1 yr.	5 00
640	Tobe, Carl	Highlands	Tonging	5-14-19	1 yr.	5 00
667	Tucker, James	Belford	Tonging	5-23-19	1 yr.	5 00
668	Thompson, Joseph	Belford	Tonging	5-19-19	1 yr.	5 00
518	Under, Henry	Leonardo	Tonging	3-25-19	1 yr.	5 00
584	Verity, William H.	Weehawken	Tonging	4-21-19	1 yr.	5 00
553	Vigeland, Frank	Highlands	Tonging	4-7-19	1 yr.	5 00
408	Vanderveer, Harry	Bayville	Tonging	5-1-19	1 yr.	2 50
388	Worroske, Romano	Belford	Tonging	7-5-18	1 yr.	5 00
390	Wallace, Frank	Keyport	Tonging	7-11-18	1 yr.	5 00
402	Wilson, Whitie	Keansburg	Tonging	7-12-18	1 yr.	5 00
432	Worth, James	Highlands	Tonging	9-10-18	1 yr.	5 00
434	Worth, Peter	Highlands	Tonging	9-5-18	1 yr.	5 00
435	Worth, Edward	Highlands	Tonging	9-5-18	1 yr.	5 00
437	White, Ray	Red Bank	Tonging	9-16-18	1 yr.	5 00
428	Worth, John	Highlands	Tonging	8-30-18	1 yr.	5 00
420	Worth, Lewis R.	Highlands	Tonging	8-30-18	1 yr.	5 00
430	Wilson, John	Highlands	Tonging	8-30-18	1 yr.	5 00

'TONGERS' LICENSES
DEPARTMENT OF THE ATLANTIC COAST
DIVISION OF BURLINGTON, OCEAN AND MONMOUTH COUNTIES
—Continued

No. of License	Master	Address	Tonging	Date	Term	Amount
431	Webster, Raymond	Leonardo	Tonging	8-19-18	1 yr.	\$5 00
522	Wright, Howard	Leonardo	Tonging	8-25-19	1 yr.	5 00
544	Wareham, Joseph	Keyport	Tonging	3-31-19	1 yr.	5 00
545	Westcott, Samuel	Keansburg	Tonging	3-31-19	1 yr.	5 00
546	Wallace, Frank	Keyport	Tonging	3-31-19	1 yr.	5 00
574	Worth, John O.	Highlands	Tonging	4-12-19	1 yr.	5 00
573	Worth, W. T.	Highlands	Tonging	4-12-19	1 yr.	5 00
579	Worth, Stratt.	Highlands	Tonging	4-12-19	1 yr.	5 00
580	Wilkins, John	Highlands	Tonging	4-12-19	1 yr.	5 00
581	Waggastad, T. H.	Highlands	Tonging	4-11-19	1 yr.	5 00
582	Worth, William	Leonardo	Tonging	5-2-19	1 yr.	5 00
583	Worth, Walter	Leonardo	Tonging	5-2-19	1 yr.	5 00
610	Williams, William	Leonardo	Tonging	5-2-19	1 yr.	5 00
611	Warnish, Bowman	Highlands	Tonging	4-12-19	1 yr.	5 00
619	Waren, James	Highlands	Tonging	4-12-19	1 yr.	5 00
626	Westcott, Daniel	Highlands	Tonging	4-12-19	1 yr.	5 00
646	Wagner, John	Highlands	Tonging	5-15-19	1 yr.	5 00
647	Wagner, Joseph	Highlands	Tonging	5-16-19	1 yr.	5 00
663	Wilson, George D.	Port Republic	Tonging	5-1-19	1 yr.	2 50
656	Wilsey, Sidney	Jersey City	Tonging	5-19-19	1 yr.	5 00
657	Warnish, David	Highlands	Tonging	5-17-19	1 yr.	5 00
658	Wagner, J. D.	Highlands	Tonging	5-18-19	1 yr.	5 00
659	Webster, Joseph	Highlands	Tonging	5-18-19	1 yr.	5 00
528	Zarnea, Stephen	Leonardo	Tonging	3-25-19	1 yr.	5 00
529	Zarnea, James	Leonardo	Tonging	3-25-19	1 yr.	5 00

BOAT LICENSES

Department of the Maurice River Cove

No. of License	Master	Address	Kind and Name of Boat	Tonnage	Term	Amount
24	Andol, James	Port Norris	Schr Helen May Schock	34	3-18-18	\$51 00
430	Allen, Edward H.	Bivalve	Sloop Mary & Ida	10	4-28-10	15 00
431	Atama, J. Wealey	Port Norris	Sloop Nobby & Ida	15	3-31-18	22 50
41	Armstrong, George	Leesburg	Schr Henry & Robbins	18	4-27-10	27 00
473	Bell, Grove	Newport	Schr Helen & Sallie	16	4-1-19	24 00
137	Brandriff, Walter	Port Norris	Schr. J. W. Fendimore	15	4-20-18	22 50
213	Blackman, Smith B.	Port Norris	Ga Sc. A. & E. Blackman	26	4-11-10	39 00
66	Bowker, Charles	Dividing Creek	Schr. Kathryn & E. Rieglin	22	4-12-18	40 50
42	Brineshultz, John M.	Cedarville	Schr. James O. Sheppard	33	4-20-10	39 00
250	Bradford, Lemuel	Newport	Schr. Samuel Lake	26	4-1-18	40 50
470	Blizard, George M.	Cedarville	Schr. Bicycle	16	3-31-10	24 00
195	Berry, Charles	Port Norris	Schr. Francis S. DuBois	23	3-31-10	34 50
116	Baker, Walter	Bridgeport	Ga Sc. Sarah M. Munford	33	3-28-18	49 50
123	Berry, William N., Jr.	Haleville	Schr. James H. Nixon	32	4-11-10	48 00
34	Bateman, J. Roberts	Mauricetown	Schr. M. D. & Belle Mulford	30	3-22-18	45 00
450	Brant, Robert	Port Norris	Schr. Mattie F. Flavelle	33	3-25-18	49 50
53	Bell, John H.	Port Norris	Ga. Sc. Roscoe S. Miller	20	1-1-18	30 00
237	Buckaleo, William B.	Cedarville	Sloop Hannah B. Gibson	14	4-29-18	21 00
42	Brineshultz, John M.	Cedarville	Schr. James O. Sheppard	33	10-5-18	49 50
25	Burt, George B.	Cedarville	Schr. Maggie Myers	24	5-27-10	30 00
82	Berry, John W.	Port Norris	Schr. Annie C. Johnson	32	4-30-18	48 00
388	Butcher, Samuel	Mauricetown	Schr. Helen Hurd	12	4-29-18	18 00
154	Berry, Walter J.	Port Norris	Schr. Alice & Mary	20	4-1-19	30 00
332	Balley, A. J.	Port Norris	Schr. C. W. & S. Peace	21	4-1-19	31 50
249	Burnight, Jacob	Dividing Creek	Schr. Bertie B.	Under	4-28-19	10 00
206	Blizard, Hiram	Cedarville	Schr. Mary Emma	10	4-28-19	15 00
118	Bateman, Elmer	Port Norris	Schr. Amanda B. Lore	21	4-26-19	31 50
210	Bornhorst, August	Port Norris	Schr. Elzette Bornhorst	17	4-26-19	25 50
588	Bowker, Thomas	Port Norris	Schr. Village Belle	21	4-20-19	31 50
96	Bradford, Charles L.	Newport	Schr. Charles L. Bradford	35	4-1-19	52 50
81	Barry, Benjamin	Port Norris	Schr. Arabelle	26	3-31-19	39 00
102	Bell, George C. J.	Bivalve	Ga Sc George C. Bell	38	3-30-19	57 00
5	Berry, Struts	Port Norris	Schr. Anna & Helen	33	12-0-18	48 00
202	Blizard, William F.	Cedarville	Sloop Mattie B.	10	3-20-18	15 00
133	Campbell, Walter J.	Port Norris	Schr. Daniel M. Bateman	18	4-1-19	27 00
301	Clark, William O.	Bivalve	Sloop Fawn	12	3-28-19	18 00
43	Conohay, George R.	Port Norris	Schr. William Dennis	18	4-12-19	27 00
380	Corson, Lysanda	Port Norris	Schr. Freeman	13	4-26-19	20 50
209	Corson, Wilson	Belmont	Sloop Jennie M. Chance	14	4-29-19	21 00

BOAT LICENSES
DEPARTMENT OF THE MAURICE RIVER COVE—Continued

No. of License	Master	Address	Kind and Name of Boat	Tonnage	Date	Term	Amount
180	Cain, Ellis L.	Port Norris	Schr. Marian Mayne	16	3-31-19	1 yr.	\$24 00
6	Coner, William W.	Dividing Creek	Schr. Falcon	21	4-3-19	1 yr.	31 50
65	Chester, Cornelius	Leesburg	Sloop Claude	11	4-25-19	1 yr.	16 50
877	Crossley, George B.	Newport	Schr. James T. Nrenkirk	25	3-29-19	1 yr.	37 50
411	Covert, Charles A.	Leesburg	Schr. Harry & Charlie	33	1-1-19	1 yr.	22 50
218	Campbell, Wilson A.	Newport	Schr. Imelda Campbell	30	4-1-19	1 yr.	45 00
241	Campbell, Philip F.	Newport	Schr. C. & B. Campbell	31	3-29-19	1 yr.	46 50
191	Cruise, Benjamin B.	Mauricetown	Ga. Sc. Araminta	27	4-1-19	1 yr.	40 50
426	Campbell, Stetson L.	Port Norris	Schr. Sunlight	26	4-5-19	1 yr.	39 00
16	Clark, William W.	Port Norris	Ga. Sc. Jeremiah N. Ogden	35	2-10-19	12-16-19	52 50
325	Chance, E. W.	Mauricetown	Sloop Mary C. Sharp	15	9-5-18	4-30-19	22 50
75	Cosler, Lucius E.	Newport	Schr. Valentine Cosler	26	3-31-18	1 yr.	39 00
427	Cox, Champion	Leesburg	Ga. Sc. Harry & Willie	14	4-27-19	1 yr.	21 00
259	Clark, Joshua	Port Norris	Ga. Sc. Lena G. Bateman	14	10-26-18	1 yr.	21 00
12	Clark, John	Port Norris	Schr. Columbia	21	10-12-18	1 yr.	31 50
150	Cox, Lilburn	Leesburg	Schr. Almira Cox	18	9-22-18	1 yr.	27 00
475	Dolson, Ferdinand	Cedarville	Sloop Mary E. Adams	10	4-19-19	1 yr.	15 00
135	Donnelly, Lorenzo G.	Heislerville	Schr. T. O. Ladow	24	4-27-19	1 yr.	36 00
562	Daniels, David B.	Bridgeton	Sloop Samuel Hanners	10	4-26-19	1 yr.	15 00
306	Davis, Eli	Fairton	Schr. Julia A. Newcombe	33	9-28-19	9-17-19	49 50
337	Evans, Norman	Millville	Schr. Boyd N. Sheppard	32	4-1-19	1 yr.	48 00
70	Earl, Thomas	Port Norris	Sloop Sallie R. A.	14	4-1-19	1 yr.	21 00
49	Errickson, Samuel W.	Leesburg	Schr. Florence Errickson	38	4-25-19	1 yr.	57 00
186	Eagan, John	Bivalve	Schr. William E. James	42	4-20-19	1 yr.	63 00
15	Emerson, Horatio F.	Cedarville	Schr. Richard Vaux	24	4-18-19	1 yr.	36 00
392	Fidler, Frank	Dennisville	Schr. Martha Ann	18	3-30-19	1 yr.	27 00
183	Foster, John	Newport	Sloop Dart	11	4-29-19	1 yr.	16 50
320	Fauver, William	Bivalve	Ga. Sc. Perseverance	21	3-25-19	1 yr.	31 50
61	Flynn, John	Camden	Ga. Sc. Thos. F. J. Howlett	48	4-25-19	1 yr.	72 00
94	Ferna, John	Greenwich	Ga. Sc. Anna M. Frome	45	4-25-19	1 yr.	67 50
134	Gaskill, Linwood	Port Norris	Schr. Curlew	32	4-29-19	1 yr.	48 00
88	Gaskill, Elcana	Port Norris	Schr. Ellen & Alice	38	5-1-19	1 yr.	57 00
268	Green, Socrates	Port Norris	Sloop Shamrock	11	4-27-19	1 yr.	16 50
54	Goff, Oliver	Port Norris	Schr. John B. Hageman	26	4-26-19	1 yr.	39 00
60	Gaskill, Edward	Bridgeton	Ga. Sc. Helen & Rodella	33	4-28-19	1 yr.	49 50
11	Gates, James	Newport	Schr. Rebecca C. Schoch	27	3-25-19	1 yr.	40 50
20	Garrison, Daniel C.	Heislerville	Sloop Olive Mulford	12	3-25-19	1 yr.	18 00
170	Garrison, Richard K.	Port Norris	Schr. E. A. Cranmer	17	10-12-18	1 yr.	25 50
22	Gaskill, Jesse, Jr.	Port Norris	Ga. Sc. Julia A. Nickelson	25	9-15-18	1 yr.	48 00

BOAT LICENSES
DEPARTMENT OF THE MAURICE RIVER COVE—Continued

BOARD OF SHELL FISHERIES.

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No. of License	Master	Address	Kind and Name of Boat	Tonnage	Date	Term	Amount
56	Harring, Gerald	Port Norris	.....	32	4-20-19	1 yr.	\$48 00
58	Hara, Harry O.	Port Norris	.....	25	4-1-19	1 yr.	37 50
97	Hend, Smith	Leesburg	.....	18	3-28-19	1 yr.	27 00
57	Hillman, Charles	Leesburg	.....	33	4-19-19	1 yr.	51 00
155	Hoffman, Elias	Port Norris	.....	33	4-28-19	1 yr.	49 50
493	Hunter, Aaron B.	Halleyville	.....	15	3-31-19	1 yr.	22 50
495	Hammers, McJellian	Newport	.....	19	4-18-19	1 yr.	28 50
79	Henderson, Dallas	Delmont	.....	31	4-1-19	1 yr.	46 50
44	Hannon, Otto	Cedarville	.....	30	4-28-19	1 yr.	45 00
239	Hoffman, William	Leesburg	.....	31	4-31-19	1 yr.	45 50
3	Hunter, William C.	Halleyville	.....	15	9-21-18	4-29-19	22 50
28	Hollinger, George	Port Norris	.....	30	11-13-18	1 yr.	45 00
4	Hinson, Arthur	Mauricetown	.....	32	9-21-18	1 yr.	48 00
32	Hickman, Isaac	Cedarville	.....	22	9-23-18	1 yr.	38 00
205	Haber, Lammis	Port Norris	.....	21	9-1-18	1 yr.	31 50
21	Loper, George M.	Dividing Creek	.....	35	12-9-18	1 yr.	52 50
18	Lore, W S. Grant	Cedarville	.....	37	9-5-18	1 yr.	55 50
203	Lee, Vernon E.	Milville	.....	Under	4-29-19	1 yr.	10 00
174	Lore, Addie	Newport	Schr. John L. Shull	42	4-23-19	1 yr.	68 00
430	Landon, Thomas	Port Norris	Sloop James H. Turner	10	4-1-19	1 yr.	15 00
229	Ladow, Samuel H.	Port Norris	.....	16	3-21-19	1 yr.	24 00
223	Lee, Frank V.	Leesburg	.....	15	4-30-19	1 yr.	22 50
288	Lawa, Lake	Dividing Creek	Sharp	29	4-29-19	1 yr.	43 50
302	Lewis, Raymond	Leesburg	S. Johnson	14	3-21-19	1 yr.	21 00
166	Lillian, Thomas	Dorchester	W. Mills	19	4-29-19	1 yr.	28 50
221	Lee, Steelman B.	Leesburg	B. Stites	38	1-1-19	1 yr.	29 50
304	Lore, Morton T.	Port Norris	I. Covert	14	4-2-19	1 yr.	21 00
36	Lodge, Frank S.	Greenwich	Dell	24	4-28-19	1 yr.	36 00
46	Lake, Samuel C.	Port Norris	E. Schoch	31	4-29-19	1 yr.	37 50
223	Lee, U. S.	Leesburg	ed	15	9-5-18	4-30-19	22 50
385	Lindam, Henry	Cold Spring	Sharp	Under	6-4-19	1 yr.	10 00
300	Leach, William	Port Norris	id C. Jacoby	29	1-1-19	1 yr.	42 00
207	Lee, Harry M.	Port Norris	B. Lake	24	4-25-19	1 yr.	36 00
37	Jenkins, Olin	Dividing Creek	J. J.	Under	4-25-19	1 yr.	10 00
528	Jeffries, Norman L.	Port Norris	Penney	17	4-27-19	1 yr.	25 50
290	Jaquett, Peter	Port Norris	id	Under	3-28-19	1 yr.	10 00
532	Jenkins, William	Dividing Creek	id Edith	Under	4-30-19	1 yr.	10 00
69	Joslin, Harrison	Newport	Joslin	30	4-1-19	1 yr.	45 00
71	Johnson, Frank	Cedarville	Elebert	18	11-1-18	1 yr.	27 00

BOAT LIENSES
DEPARTMENT OF THE MAURICE RIVER COVE—Continued

No. of License	Master	Address	Kind and Name of Boat	Tonnage	Date	Term	Amount
74	Johnson, Charles W.	Newport	Ga. Sc. Cashier	21	11-1-18	1 yr.	\$31 50
115	Iseman, Martin	Blvalve	Sloop Melvin Bailey	Under	3-30-19	1 yr.	10 00
31	Ingersoll, Charles M.	Dividing Creek	Schr. Jane A. Smith	16	4-24-19	1 yr.	24 00
210	McDaniels, John	Port Norris	Schr. Daniel Sharp	20	4-18-19	1 yr.	30 00
230	Moore, Raymond	Cedarville	Sloop Sherman	12	3-28-19	1 yr.	18 00
99	Moore, Judson	Port Norris	Schr. Robert Bould	30	4-24-19	1 yr.	45 00
378	Moore, Harry	Dividing Creek	Sloop C. & H. Elmer	11	4-28-19	1 yr.	16 50
204	Meerwald, Augustus J.	Dennisville	Schr. Martha Meerwald	27	4-30-19	1 yr.	40 50
55	McConnell, George F.	Port Norris	Schr. Mary & Margaret	21	4-8-19	1 yr.	31 50
224	Nelson, George R.	Camden	Schr. Elvina English	28	4-21-19	1 yr.	42 00
345	Moore, Oscar	Port Norris	Schr. Hattie B. Robbins	18	4-8-19	1 yr.	27 00
131	McDaniel, Howard	Leesburg	Schr. Anna & Marie	14	9-25-18	4-29-19	21 00
400	McDonald, Howard	Port Norris	Schr. Anna W. Neal	16	4-28-19	1 yr.	24 00
68	McDaniels, Howard	Leesburg	Schr. Bartle Bennett	21	12-28-18	1 yr.	31 50
209	Mulford, Ernest L.	Cedarville	Schr. Ephraim Mulford	33	4-28-19	1 yr.	49 50
62	Morris, Thomas	Port Norris	Ga. Sc. Maggie Daniels	21	10-13-18	1 yr.	31 50
26	Newcombe, Roland C.	Port Norris	Schr. Emma J. Newcombe	33	4-2-19	1 yr.	49 50
281	Newcombe, Boardman O.	Port Norris	Sloop Mary A. Bickley	13	4-1-19	1 yr.	19 50
317	Newcombe, George M. D.	Newport	Schr. Tidal Wave	30	8-22-19	1 yr.	45 00
376	Nickerson, Harry E.	Port Norris	Sloop Gracie	11	3-31-19	1 yr.	16 50
64	Newcombe, Adrian B.	Newport	Schr. Adrian B. Newcombe	34	3-23-19	1 yr.	51 00
144	Nickelson, Henry C.	Port Norris	Ga. Sc. Alma & Alvin	41	2-17-18	1 yr.	61 50
76	Pepper, Jacob	Dividing Creek	Ga. Sc. Anna C. Terry	22	10-6-18	1 yr.	33 00
316	Peterson, Lucius E.	Port Norris	Schr. Anna M. Robbins	25	9-15-18	1 yr.	37 50
80	Peterson, Christian J.	Bridgeton	Schr. Helen Peterson	32	3-28-19	1 yr.	48 00
318	Peterson, James	Port Norris	Schr. Nellie & Mary	21	4-3-19	1 yr.	31 50
167	Peterson, Dare T.	Port Norris	Sloop Nancy L. Coner	14	4-1-19	1 yr.	21 00
161	Pepper, Frank	Port Norris	Ga. Sc. Linda M. Sockwell	42	4-15-19	1 yr.	63 00
227	Peterson, William B.	Port Norris	Schr. Mary W. Mears	33	4-19-19	1 yr.	49 50
51	Peterson, Aaron S.	Port Norris	Sloop Pearlita & Lella	10	4-26-19	1 yr.	15 00
145	Phillips, William B.	Port Norris	Schr. Trlo	18	4-28-19	1 yr.	27 00
1	Peterson, Charles S.	Newport	Schr. C. W. Hand	36	4-30-19	1 yr.	54 00
298	Pew, Frank	Greenwich	Schr. John Guyant	36	4-19-19	1 yr.	54 00
117	Polhamus, William	Leesburg	Sloop Marcie	Under	4-28-19	1 yr.	10 00
451	Peirce, John W.	Dorchester	Sloop Excel	8	4-23-19	1 yr.	12 00
214	Polhamus, Alfred	Leesburg	Schr. John Busby	12	4-1-19	1 yr.	18 00
95	Pettitt, Charles H.	Blvalve	Schr. A. G. Mulford	15	2-21-19	10-8-19	22 50
255	Peterson, George C.	Newport	Schr. Prize	28	12-1-18	1 yr.	42 00
200	Peterson, John C.	Bridgeton	Schr. C. J. Peterson	37	4-8-18	1 yr.	55 50

BOAT LICENSES
DEPARTMENT OF THE MAURICE RIVER COVE—Continued

No. of License	Master	Address	Kind and Name of Boat	Tonnage	Date	Term	Amount
172	Robbins, David T.	Port Norris	.....	30	8-28-19	1 yr.	\$45 00
78	Robinson, Edgar	Blivalve	.....	16	4-30-19	1 yr.	15 00
349	Rowley, L. B.	Port Norris	.....	14	8-24-19	1 yr.	21 00
6	Randolph, Henry W.	Port Norris	part	17	4-1-19	1 yr.	26 50
7	Riggin, Charles M.	Port Norris	in	24	4-27-19	1 yr.	36 00
46	Riggin, Bentley	Port Norris	.....	71	4-29-19	1 yr.	106 50
50	Robbins, Boyd M.	Port Norris	.....	26	4-1-19	1 yr.	39 00
35	Rock, William	Greenwich	.....	32	8-28-19	1 yr.	48 00
237	Robbins, David, Jr.	Port Norris	.....	23	4-1-19	1 yr.	34 50
9	Riggin, Edward M.	Port Norris	.....	25	4-8-19	1 yr.	37 50
2	Riggin, William F.	Port Norris	in	29	4-1-19	1 yr.	43 50
113	Rogers, Maurice S.	Merchantville	.....	18	4-28-19	1 yr.	27 00
240	Reed, John	Port Norris	.....	31	4-29-19	1 yr.	46 50
310	Roe, J. Wesley	Dorchester	.....	15	12-8-18	1 yr.	22 50
335	Robbins, Wilbert	Port Norris	.....	23	4-20-19	1 yr.	34 50
28	Sockwell, Herbert	Port Norris	.....	22	4-28-19	1 yr.	33 00
315	Sharp, John T.	Port Norris	nyate	21	8-22-19	1 yr.	31 50
47	Sharp, John W.	Leesburg	.....	33	8-22-19	1 yr.	49 50
408	Sharpless, John T.	Millville	.....	21	8-30-19	1 yr.	31 50
114	Shaw, George	Dorchester	.....	10	4-1-19	1 yr.	15 00
147	Sharp, Zadok R., Jr.	Man Creek	.....	14	4-1-19	1 yr.	21 00
19	Satter, John	Port Norris	.....	18	4-24-19	1 yr.	27 00
119	Sutton, Harry W.	Port Norris	.....	16	8-31-19	1 yr.	22 50
131	Sutton, Harry W.	Leesburg	.....	14	4-29-19	1 yr.	21 00
40	Sharp, Zadok C.	Leesburg	.....	31	8-28-19	1 yr.	46 50
279	Sharpless, Maurice	Bridgeton	.....	34	4-30-19	1 yr.	51 00
10	Stites, Gilbert	Drageton	.....	21	4-1-19	1 yr.	31 50
103	Solomon, Allen	Dividing Creek	.....	Under	4-28-19	1 yr.	10 00
30	Sutton, Clarence	Bridgeton	.....	25	8-19-19	1 yr.	37 50
283	Sutton, Ernest	Bridgeton	.....	25	8-20-19	1 yr.	37 50
65	Shull, Roscoe	Port Norris	.....	43	4-16-19	1 yr.	64 50
215	Smith, Henry C.	Newport	.....	33	8-22-19	1 yr.	49 50
418	Smith, Seth P.	Leesburg	.....	13	5-2-19	1 yr.	19 50
367	Sutter, William	Port Norris	.....	14	8-28-19	1 yr.	21 00
100	Shull, Roscoe	Newport	.....	34	10-16-18	1 yr.	51 00
459	Smith, A. C.	Leesburg	.....	28	10-7-18	1 yr.	42 00
86	Sheppard, S. Ware	Newport	.....	34	10-22-18	1 yr.	51 00
354	Terry, William	Port Norris	.....	13	4-29-19	1 yr.	19 50
272	Terry, William F.	Port Norris	.....	16	8-27-19	1 yr.	24 00

BOAT LICENSES
DEPARTMENT OF THE MAURICE RIVER COVE—Continued

No. of License	Master	Address	Kind and Name of Boat	Topnage	Date	Term	Amount
199	Townsend, Stacy	Port Norris	Schr. Marcus L. Godfrey	24	4-1-19	1 yr.	\$36 00
29	Tarburton, Elmer E.	Greenwich	Ga. Sc. Nell Johnson	39	4-30-19	1 yr.	58 50
319	Toohy, John	Philadelphia	Schr. Mary F. Howlett	27	3-31-19	1 yr.	40 50
17	Turner, Lemuel	Dividing Creek	Schr. L. E. Yates	37	3-18-19	1 yr.	55 50
83	Tozour, Charles	Delmont	Ga. Sc. Jay	18	10-13-18	1 yr.	27 00
129	Vall, William A.	Dividing Creek	Schr. Dawning Light	23	4-30-19	1 yr.	34 50
583	Wilson, Peter	Bridgeton	Sloop Mall	13	4-1-19	1 yr.	19 50
87	Willing, Chester M.	Port Norris	Schr. Three Sisters	23	4-20-19	1 yr.	34 50
203	Wilden, Somers	Mauricetown	Schr. Anna M. Newcombe	24	3-28-19	1 yr.	36 00
340	Wallen, David	Fairton	Ga. Sc. A. E. Whitaker	20	3-30-19	1 yr.	30 00
59	Waters, George	Bridgeton	Ga. Sc. Edna & Zadok	10	4-18-18	1 yr.	15 00
112	Windfohr, Arthur	Bivalve	Sloop Thelma	13	4-28-19	1 yr.	19 50
48	Williams, Whitefield	Helsterville	Schr. Sarah T. Sharp	17	4-29-19	1 yr.	25 50
211	Weldon, William H.	Newport	Schr. George W. Crist	21	4-1-19	1 yr.	31 50
341	Welden, William, Jr.	Newport	Schr. North Star	25	4-6-19	1 yr.	37 50
92	Westcott, George H.	Fairton	Schr. John H. Orr	27	4-20-19	1 yr.	40 50
14	Whilden, Edward	Philadelphia	Ga. Sc. M. A. Howlett	81	4-12-19	1 yr.	40 50
33	Willing, Marian C.	Port Norris	Schr. Thos. H. Robbins	28	10-23-18	1 yr.	42 00

TONGERS' LICENSES
Department of the Maurice River Cove

No. of License	Master	Address	Kind and Name of Boat	Tonnage	Date	Term	Amount
228	Alcorn, Samuel	Port Norris	Skiff	Tonging	3-1919	12-1919	\$5 00
351	Allen, Edward H.	Bivalve	Skiff	Tonging	3-1919	12-1919	5 00
386	Alcorn, Robert	Bivalve	Skiff	Tonging	5-1919	1 yr.	5 00
381	Blizzard, William F.	Cedarville	Skiff	Tonging	4-1919	12-31-19	5 00
176	Banks, Leroy C.	Newport	Skiff	Tonging	9-1919	12-31-19	5 00
408	Bishop, Belford	Bivalve	Skiff	Tonging	6-1919	12-31-19	5 00
413	Barnett, Frank	Fishing Creek	Skiff	Tonging	6-1919	12-31-19	5 00
415	Bass, George	Port Norris	Skiff	Tonging	6-1919	12-31-19	5 00
143	Brandriff, Walter	Port Norris	Skiff	Tonging	7-1918	12-31-18	5 00
152	Bass, George	Port Norris	Skiff	Tonging	7-1918	12-31-18	5 00
154	Bass, John	Port Norris	Skiff	Tonging	7-1918	12-31-18	5 00
398	Buck, William	Cedarville	Skiff	Tonging	5-1919	1 yr.	5 00
390	Simmons, Thomas	Cedarville	Skiff	Tonging	5-1919	1 yr.	5 00
393	Bevis, Thomas	Green Creek	Skiff	Tonging	5-1919	1 yr.	5 00
395	Bates, William J.	Fishing Creek	Skiff	Tonging	5-1919	1 yr.	5 00
248	Brandriff, Walter S.	Port Norris	Skiff	Tonging	3-1919	12-1919	5 00
254	Barrett, Jesse	Bivalve	Skiff	Tonging	3-1919	12-1919	5 00
255	Burnlight, Clarence	Dividing Creek	Skiff	Tonging	3-1919	12-1919	5 00
258	Burnlight, Jacob	Dividing Creek	Skiff	Tonging	3-1919	12-1919	5 00
261	Boice, James	Green Creek	Skiff	Tonging	3-1919	12-1919	5 00
287	Bevis, Wilbert	Green Creek	Skiff	Tonging	3-1919	12-1919	5 00
289	Bateman, Wilmon, Jr.	Green Creek	Skiff	Tonging	3-1919	12-1919	5 00
310	Bevis, Wesley	Green Creek	Skiff	Tonging	3-1919	12-1919	5 00
313	Babbitt, John	Green Creek	Skiff	Tonging	3-1919	12-1919	5 00
355	Bevis, John S.	Dias Creek	Skiff	Tonging	3-1919	12-1919	5 00
357	Blizzard, Demon	Eldora	Skiff	Tonging	3-1919	12-1919	5 00
358	Ruckmaster, Charles	Dividing Creek	Skiff	Tonging	3-1919	12-1919	5 00
211	Bass, John M.	Newport	Skiff	Tonging	1-1919	12-1919	5 00
203	Batts, Walter	Goshen	Skiff	Tonging	1-1919	12-1919	5 00
387	Corson, Isaac	Port Norris	Skiff	Tonging	5-1919	1 yr.	5 00
241	Clark, John S.	Bivalve	Skiff	Tonging	3-1919	12-31-19	5 00
275	Cresse, Luther	Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
288	Conover, Harry	Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
308	Colwiltz, Harry	Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
343	Corson, Lysanda D.	Port Norris	Skiff	Tonging	3-1919	12-31-19	5 00
354	Corson, Somers	Dias Creek	Skiff	Tonging	3-1919	12-31-19	5 00
364	Campbell, Winfield	Bivalve	Skiff	Tonging	3-1919	12-31-19	5 00
294	Camp, Harry	Pierces	Skiff	Tonging	3-1919	12-31-19	5 00
329	Crolew, Robert	Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
230	Chambers, George N.	Cape May Court House	Skiff	Tonging	1-1919	12-31-19	5 00

BOARD OF SHELL FISHERIES.

TONGERS' LICENSES
DEPARTMENT OF THE MAURICE RIVER COVE—Continued

No. of License	Master	Address	Kind and Name of Boat	Tonnage	Date	Term	Amount
375	Coulter, William	Bridgeton	Skiff	Tonging	4-1919	12-31-19	\$5 00
379	Corson, Champlon	Cedarville	Skiff	Tonging	4-1919	12-31-19	5 00
380	Corson, Robert	Cedarville	Skiff	Tonging	4-1919	12-31-19	5 00
417	Corson, Charles	Delmont	Skiff	Tonging	6-1919	12-31-19	5 00
151	Corson, Lysanda	Port Norris	Skiff	Tonging	7-1919	12-31-19	5 00
350	Dolson, Ferdinand	Cedarville	Skiff	Tonging	3-1919	12-31-19	5 00
361	Dolson, Thomas Jr.	Heislerville	Skiff	Tonging	3-1919	12-31-19	5 00
205	Douglas, Thomas H.	Dias Creek	Skiff	Tonging	1-1919	12-31-19	5 00
207	Douglas, Percy L.	Dias Creek	Skiff	Tonging	1-1919	12-31-19	5 00
409	Doughty, Frank	Green Creek	Skiff	Tonging	6-1919	12-31-19	5 00
396	Du Bois, Reason	Green Creek	Skiff	Tonging	5-1919	12-31-19	5 00
401	Dawson, C. Herbert	Erma	Skiff	Tonging	5-1919	12-31-19	5 00
412	Donnelly, Maurice S.	Bivalve	Skiff	Tonging	6-1919	12-31-19	5 00
281	Errickson, Frank	Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
318	Edmonds, Walter	Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
347	Errickson, Samuel	Goshen	Skiff	Tonging	3-1919	12-31-19	5 00
235	Errickson, Robert T. Jr.	Goshen	Skiff	Tonging	1-1919	12-31-19	5 00
423	Earl, Frank	Port Norris	Skiff	Tonging	6-1919	12-31-19	5 00
424	Earl, Dunham	Port Norris	Skiff	Tonging	6-1919	12-31-19	5 00
421	Errickson, Harry W.	Dias Creek	Skiff	Tonging	6-1919	12-31-19	5 00
422	Earl, Thomas	Port Norris	Skiff	Tonging	6-1919	12-31-19	5 00
141	Earl, Frank	Port Norris	Skiff	Tonging	7-1918	12-31-18	5 00
142	Earl, Thomas	Port Norris	Skiff	Tonging	7-1918	12-31-18	5 00
148	Earl, Dunham	Port Norris	Skiff	Tonging	7-1918	12-31-18	5 00
263	Foster, Harry	Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
298	Foster, Levy	Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
330	Ford, J. J.	Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
363	Foster, John	Newport	Skiff	Tonging	3-1919	12-31-19	5 00
374	Foster, Uriah	Port Norris	Skiff	Tonging	3-1919	12-31-19	5 00
215	Facemire, Albert R.	Newport	Skiff	Tonging	4-1919	12-31-19	5 00
406	Fox, Leonard	Fishing Creek	Skiff	Tonging	1-1919	12-31-19	5 00
397	Foster, Albert	Green Creek	Skiff	Tonging	5-1919	12-31-19	5 00
245	Gandy, Ephraim	Dividing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
247	Gamber, Joseph	Bivalve	Skiff	Tonging	3-1919	12-31-19	5 00
252	Gangloff, John	Bivalve	Skiff	Tonging	3-1919	12-31-19	5 00
301	Godfrey, Vernon	Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
305	Gramlich, Frederick	Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
306	Gramlich, William	Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
335	Garraon, Powell	Cedarville	Skiff	Tonging	3-1919	12-31-19	5 00
340	Gandy, Lewis	Newport	Skiff	Tonging	3-1919	12-31-19	5 00

TONGERS' LICENSES
DEPARTMENT OF THE MAURICE RIVER COVE—Continued

No. of License	Master	Address	Kind and Name of Boat	Tonnage	Date	Term	Amount
342		Newport	Skiff	Tonging	3-1919	12-31-19	\$5 00
343		Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
344		Cape May Court House	Skiff	Tonging	3-1919	12-31-19	5 00
345		Riverview	Skiff	Tonging	3-1919	12-31-19	5 00
346		Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
347		Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
348		Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
349		Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
350		Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
351		Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
352		Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
353		Pierces	Skiff	Tonging	3-1919	12-31-19	5 00
354		Pierces	Skiff	Tonging	3-1919	12-31-19	5 00
355		Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
356		Goshen	Skiff	Tonging	3-1919	12-31-19	5 00
357		Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
358		Pierces	Skiff	Tonging	3-1919	12-31-19	5 00
359		Newport	Skiff	Tonging	3-1919	12-31-19	5 00
360		Goshen	Skiff	Tonging	3-1919	12-31-19	5 00
361		Goshen	Skiff	Tonging	3-1919	12-31-19	5 00
362		South Dennis	Skiff	Tonging	3-1919	12-31-19	5 00
363		South Dennis	Skiff	Tonging	3-1919	12-31-19	5 00
364		Cedarville	Skiff	Tonging	4-1919	12-31-19	5 00
365		Dennisville	Skiff	Tonging	4-1919	12-31-19	5 00
366		Millville	Skiff	Tonging	4-1919	12-31-19	5 00
367		Cedarville	Skiff	Tonging	4-1919	12-31-19	5 00
368		Dias Creek	Skiff	Tonging	1-1919	12-31-19	5 00
369		Leesburg	Skiff	Tonging	1-1919	12-31-19	5 00
370		Newport	Skiff	Tonging	1-1919	12-31-19	5 00
371		Dias Creek	Skiff	Tonging	1-1919	12-31-19	5 00
372		Dias Creek	Skiff	Tonging	1-1919	12-31-19	5 00
373		South Dennis	Skiff	Tonging	1-1919	12-31-19	5 00
374		Millville	Skiff	Tonging	1-1919	12-31-19	5 00
375		Green Creek	Skiff	Tonging	1-1919	12-31-19	5 00
376		Millville	Skiff	Tonging	10-1919	12-31-19	5 00
377		Dividing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
378	Mcman, Martin	Riverview	Skiff	Tonging	3-1919	12-31-19	5 00
379	Jenkins, Olio	Dividing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
380	Jenkins, Samuel	Dividing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
381	Jenkins, Charles W.	Newport	Skiff	Tonging	3-1919	12-31-19	5 00
382	Jenkins, William	Dividing Creek	Skiff	Tonging	3-1919	12-31-19	5 00

TONGERS' LICENSES
DEPARTMENT OF THE MAURICE RIVER COVE—Continued

No. of License	Master	Address	Kind and Name of Boat	Tonnage	Date	Term	Amount
240	Johnson, George W.	Green Creek	Skiff	Tonging	3-1919	12-31-19	\$5 00
155	Jenkins, Samuel	Dividing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
302	Kinsey, George	Erma	Skiff	Tonging	3-1919	12-31-19	5 00
250	Lord, Linwood	Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
267	Lewis, Solomon	Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
291	Long, Milton	Erma	Skiff	Tonging	3-1919	12-31-19	5 00
365	Loper, Harry	Cedarville	Skiff	Tonging	3-1919	12-31-19	5 00
295	Lloyd, Joshua	Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
202	Lore, Morton T.	Port Norris	Skiff	Tonging	3-1919	12-31-19	5 00
171	Loper, Harry	Cedarville	Skiff	Tonging	3-1919	12-31-19	5 00
153	Leach, William	Port Norris	Skiff	Tonging	3-1919	12-31-19	5 00
877	Moore, Bert	Cedarville	Skiff	Tonging	3-1919	12-31-19	5 00
382	Murray, Frank B.	Cedarville	Skiff	Tonging	4-1919	12-31-19	5 00
210	Moore, William S.	Cedarville	Skiff	Tonging	4-1919	12-31-19	5 00
231	McPherson, James O.	Fishing Creek	Skiff	Tonging	4-1919	12-31-19	5 00
172	Myers, William	Newport	Skiff	Tonging	4-1919	12-31-19	5 00
420	Moore, Everett	Port Norris	Skiff	Tonging	4-1919	12-31-19	5 00
149	McKenzie, Thomas	Port Norris	Skiff	Tonging	4-1919	12-31-19	5 00
177	Morris, Henry	Millville	Skiff	Tonging	4-1919	12-31-19	5 00
180	Meerwald, Augustus, Jr.	South Dennis	Skiff	Tonging	4-1919	12-31-19	5 00
403	Morris, Mark	Millville	Skiff	Tonging	4-1919	12-31-19	5 00
299	Moore, James B.	Bridgeton	Skiff	Tonging	4-1919	12-31-19	5 00
266	Mixner, George	Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
268	Mathis, J. W.	Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
314	Mathis, Frank	Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
344	Moore, Isaac	Dividing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
345	Moore, Harry	Dividing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
348	Mattes, Charles W.	Goshen	Skiff	Tonging	3-1919	12-31-19	5 00
349	McKenzie, Thomas	Port Norris	Skiff	Tonging	3-1919	12-31-19	5 00
341	Moore, Charles O.	Port Norris	Skiff	Tonging	3-1919	12-31-19	5 00
352	McAllister, Lewis B.	Port Norris	Skiff	Tonging	3-1919	12-31-19	5 00
356	Mathews, Caleb B.	Pleasantville	Skiff	Tonging	3-1919	12-31-19	5 00
362	Moore, Raymond	Cedarville	Skiff	Tonging	3-1919	12-31-19	5 00
371	Mathews, Frank	Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
404	Nickerson, Chester	Port Norris	Skiff	Tonging	3-1919	12-31-19	5 00
391	Norton, Uriah	Dias Creek	Skiff	Tonging	5-1919	12-31-19	5 00
293	Ogden, James	Dias Creek	Skiff	Tonging	5-1919	12-31-19	5 00
394	Oliver, Samuel	West Cape May	Skiff	Tonging	3-1919	12-31-19	5 00
256	Parks, Leroy	Port Norris	Skiff	Tonging	5-1919	1 yr.	5 00
259	Peterson, Aaron	Port Norris	Skiff	Tonging	3-1919	12-31-19	5 00

TONGERS' LICENSES
DEPARTMENT OF THE MAURICE RIVER COVE--Continued

No. of License	Master	Address	Kind and Name of Boat	Tonnage	Date	Term	Amount
270		Cape May Court House	Skiff	Tonging	3-1919	12-31-19	\$5 00
311		Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
353		Dias Creek	Skiff	Tonging	3-1919	12-31-19	5 00
216		Port Norris	Skiff	Tonging	1-1919	12-31-19	5 00
217		Newport	Skiff	Tonging	1-1919	12-31-19	5 00
418		Dias Creek	Skiff	Tonging	1-1919	12-31-19	5 00
146		Port Norris	Skiff	Tonging	7-1918	12-31-18	5 00
147		Port Norris	Skiff	Tonging	7-1918	12-31-19	5 00
244		Pierces	Skiff	Tonging	3-1919	12-31-19	5 00
373		Goshen	Skiff	Tonging	4-1919	12-31-19	5 00
212		Newport	Skiff	Tonging	1-1919	12-31-19	5 00
334		Dennistville	Skiff	Tonging	1-1919	12-31-19	5 00
414		Avalon	Skiff	Tonging	6-1919	12-31-19	5 00
380		Cedarville	Skiff	Tonging	3-1919	1 yr.	5 00
353		Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
334		Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
370		Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
253		Port Norris	Skiff	Tonging	3-1919	12-31-19	5 00
331		Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
376		Green Creek	Skiff	Tonging	4-1919	12-31-19	5 00
201		Port Norris	Skiff	Tonging	1-1919	12-31-19	5 00
306		Cedarville	Skiff	Tonging	1-1919	12-31-19	5 00
214	P.	Dias Creek	Skiff	Tonging	1-1919	12-31-19	5 00
237		Goshen	Skiff	Tonging	1-1919	12-31-19	5 00
150		Goshen	Skiff	Tonging	7-1918	12-31-18	5 00
150		Dividing Creek	Skiff	Tonging	7-1918	12-31-18	5 00
170	P.	Dias Creek	Skiff	Tonging	10-1918	12-31-18	5 00
306		Green Creek	Skiff	Tonging	5-1919	1 yr.	5 00
242		Port Norris	Skiff	Tonging	3-1919	12-31-19	5 00
265		Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
272		Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
274		Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
278		Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
282		Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
292		Dias Creek	Skiff	Tonging	3-1919	12-31-19	5 00
307		Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
300		Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
330		Rio Grande	Skiff	Tonging	3-1919	12-31-19	5 00
322		Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
323		Dias Creek	Skiff	Tonging	3-1919	12-31-19	5 00

TONGERS' LICENSES
DEPARTMENT OF THE MAURICE RIVER COVE—Continued

No. of License	Master	Address	Kind and Name of Boat	Tonnage	Date	Term	Amount
324	Selover, Howard	Green Creek	Skiff	Tonging	3-1919	12-31-19	\$5 00
325	Somers, Jesse	Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
328	Sheets, Alfred	Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
249	Trout, Howard	Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
260	Thompson, William	Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
264	Trout, Ebbie	Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
268	Thompson, Harry	Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
304	Thompson, Martin	Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
317	Taylor, Edward	Cold Spring	Skiff	Tonging	3-1919	12-31-19	5 00
319	Trout, John	Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
338	Thornberry, Howard M.	Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
372	Trout, Joseph C.	Green Creek	Skiff	Tonging	3-1919	12-31-19	5 00
239	Thompson, Charles B.	Green Creek	Skiff	Tonging	1-1919	12-31-19	5 00
410	Terry, Walter	Port Norris	Skiff	Tonging	6-1919	12-31-19	5 00
419	Trout, William	Port Norris	Skiff	Tonging	6-1919	12-31-19	5 00
402	Taylor, Charles S.	Cold Spring	Skiff	Tonging	5-1919	12-31-19	5 00
405	Terry, William F.	Port Norris	Skiff	Tonging	5-1919	12-31-19	5 00
400	Thompson, Wesley	Green Creek	Skiff	Tonging	5-1919	12-31-19	5 00
243	Westcott, Chester	Dennisville	Skiff	Tonging	3-1919	12-31-19	5 00
251	Whitaker, J. F.	Bivalve	Skiff	Tonging	3-1919	12-31-19	5 00
273	Woolson, Edgar	Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
276	Woolson, Earl	Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
277	Woolson, Leslie	Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
297	Warner, George	Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
312	Westcott, Coley	Dias Creek	Skiff	Tonging	3-1919	12-31-19	5 00
360	Wilson, William	Cedarville	Skiff	Tonging	3-1919	12-31-19	5 00
366	Wilson, Peter B.	Cedarville	Skiff	Tonging	3-1919	12-31-19	5 00
233	Weatherby, William H.	Goshen	Skiff	Tonging	1-1919	12-31-19	5 00
170	Weldon, Frank	Newport	Skiff	Tonging	9-1918	12-31-18	5 00
407	Windfohr, Arthur	Bivalve	Skiff	Tonging	6-1919	12-31-19	5 00
411	Wallen, Robert	Fortescue	Skiff	Tonging	6-1919	12-31-19	5 00
145	Whitaker, Frank	Bivalve	Skiff	Tonging	7-1918	12-31-18	5 00
280	Yearicks, Fenton	Cape May Court House	Skiff	Tonging	3-1919	12-31-19	5 00
283	Yearicks, Freeman	Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
284	Yearicks, Earl	Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
285	Yearicks, William B.	Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
286	Yearicks, Harvey	Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
290	Yearicks, Gordon	Fishing Creek	Skiff	Tonging	3-1919	12-31-19	5 00
288	Young, Mathais H.	Goshen	Skiff	Tonging	1-1919	12-31-19	5 00
175	Yearick, Earl F.	Erma	Skiff	Tonging	9-1918	12-31-18	5 00

TONGERS' LICENSES
Department of the Atlantic Coast
Division of Atlantic County

No. of License	Master	Address	Date	Term	Amount
213	Allen, Joseph B., Jr.	Ocean City	9-3-18	1-1-19	\$2 50
218	Adams, Charles	Pleasantville	6-2-19	1-1-20	2 50
265	Allen, C. W.	New Gretna	6-2-19	1-1-20	2 50
271	Allen, D. F.	New Gretna	6-2-19	1-1-20	2 50
277	Allen, Thomas	New Gretna	6-2-19	1-1-20	2 50
292	Adams, Nicholas	Somers Point	6-2-19	1-1-20	2 50
554	Allen, Thomas	New Gretna	6-2-19	1-1-20	2 50
559	Allen, Ed. K., Sr.	New Gretna	6-2-19	1-1-20	2 50
560	Allen, Ed. K., Jr.	New Gretna	6-2-19	1-1-20	2 50
561	Allen, Leslie	New Gretna	6-2-19	1-1-20	2 50
226	Bogan, Richard	Atlantic City	6-2-19	1-1-20	2 50
237	Barritt, Aaron	Atlantic City	6-2-19	1-1-20	2 50
238	Bowen, Oscar	Oceanville	6-2-19	1-1-20	2 50
242	Bowen, Albert	Leeds Point	6-2-19	1-1-20	2 50
264	Bowen, James C.	Leeds Point	6-2-19	1-1-20	2 50
266	Bozarth, Melvin	New Gretna	6-2-19	1-1-20	2 50
553	Bowen, John	Leeds Point	6-2-19	1-1-20	2 50
67	Cramer, S. L.	Atlantic City	6-2-19	1-1-20	2 50
215	Conover, John W.	Atlantic City	6-2-19	1-1-20	2 50
235	Cobb, Howard	New Gretna	6-2-19	1-1-20	2 50
273	Cavilew, Reuben	Lower Bank	6-2-19	1-1-20	2 50
284	Cramer, Earl	New Gretna	6-2-19	1-1-20	2 50
290	Chew, Benjamin	New Gretna	6-2-19	1-1-20	2 50
551	Cavilew, D. F.	Port Republic	6-2-19	1-1-20	2 50
555	Cavilew, Raymond	Port Republic	6-2-19	1-1-20	2 50
556	Cavilew, Howard	Port Republic	6-2-19	1-1-20	2 50
563	Cramer, John T.	New Gretna	6-2-19	1-1-20	2 50
564	Cramer, Jesse	New Gretna	6-2-19	1-1-20	2 50
224	Driscoll, Cornelius	Atlantic City	6-2-19	1-1-20	2 50
229	Doughty, C. Edward	Oceanville	6-2-19	1-1-20	2 50
260	Dennis, Burris	Scullyville	6-2-19	1-1-20	2 50
267	Downs, William	New Gretna	6-2-19	1-1-20	2 50
272	Darby, John W.	Atlantic City	6-2-19	1-1-20	2 50
291	Doughty, Mark	Somers Point	6-2-19	1-1-20	2 50
299	Dennis, Charles	Scullyville	6-2-19	1-1-20	2 50
292	Gandy, David W.	Ocean City	6-2-19	1-1-20	2 50
225	Gerew, Lewis	New Gretna	6-2-19	1-1-20	2 50
232	Gerew, Harold	New Gretna	6-2-19	1-1-20	2 50
233	Gaskill, Morris C.	New Gretna	6-2-19	1-1-20	2 50
276	Gale, Hilliard	Atlantic City	6-2-19	1-1-20	2 50
286	Gale, Merritt	New Gretna	6-2-19	1-1-20	2 50
300	Garrison, Dennis	Scullyville	6-2-19	1-1-20	2 50
206	Hewitt, Norris	Pleasantville	6-2-19	1-1-20	2 50
211	Huntley, Charles	Port Republic	6-2-19	1-1-20	2 50
239	Higbee, James W.	Leeds Point	6-2-19	1-1-20	2 50
243	Higbee, John C.	Leeds Point	6-2-19	1-1-20	2 50
244	Higbee, Fred	Leeds Point	6-2-19	1-1-20	2 50
259	Horton, Charles	Pleasantville	6-2-19	1-1-20	2 50
261	Higbee, Somers T.	Leeds Point	6-2-19	1-1-20	2 50
282	Heintz, Harry	New Gretna	6-2-19	1-1-20	2 50
287	Higbee, Arthur	Atlantic City	6-2-19	1-1-20	2 50
298	Horton, John	Pleasantville	6-2-19	1-1-20	2 50
291	Loveland, Mark L.	Leeds Point	6-2-19	1-1-20	2 50
293	Loveland, Cameron S.	Leeds Point	6-2-19	1-1-20	2 50
219	Lafferty, Walter	Pleasantville	6-2-19	1-1-20	2 50
230	Leeds, Jackson	Port Republic	6-2-19	1-1-20	2 50
234	Lampson, Astin	New Gretna	6-2-19	1-1-20	2 50
262	Leeds, Charles A.	Leeds Point	6-2-19	1-1-20	2 50
278	Loveland, William E.	New Gretna	6-2-19	1-1-20	2 50
281	Loveland, Jesse A.	New Gretna	6-2-19	1-1-20	2 50
279	Loveland, Benjamin	New Gretna	6-2-19	1-1-20	2 50
294	Lloyd, Walter J.	Scullyville	6-2-19	1-1-20	2 50
268	Loveland, Joseph A.	New Gretna	6-2-19	1-1-20	2 50
557	Leeds, Joah	Port Republic	6-2-19	1-1-20	2 50
562	Loveland, Jesse I.	New Gretna	6-2-19	1-1-20	2 50
216	Mathis, Thomas	Atlantic City	6-2-19	1-1-20	2 50
221	Mathis, William H.	New Gretna	6-2-19	1-1-20	2 50
222	Mathis, Joseph H., Jr.	New Gretna	6-2-19	1-1-20	2 50
228	Mathis, Joseph K., Sr.	New Gretna	6-2-19	1-1-20	2 50

BOARD OF SHELL FISHERIES.

TONGERS' LICENSES

DEPARTMENT OF THE ATLANTIC COAST

DIVISION OF ATLANTIC COUNTY—Continued

No. of License	Master	Address	Date	Term	Amount
227	Mathis, Harry V.	New Gretna	6-2-19	1-1-20	\$2 50
228	Mathis, Leron	New Gretna	6-2-19	1-1-20	2 50
241	Mathis, Thomas H.	New Gretna	6-2-19	1-1-20	2 50
269	Mathis, Asbury	New Gretna	6-2-19	1-1-20	2 50
270	Mathis, Marvin	New Gretna	6-2-19	1-1-20	2 50
274	Maxwell, Grover	New Gretna	6-2-19	1-1-20	2 50
275	Mathis, Josiah	New Gretna	6-2-19	1-1-20	2 50
280	Mathis, Caleb	Pleasantville	6-2-19	1-1-20	2 50
283	Mathis, E. P.	New Gretna	6-2-19	1-1-20	2 50
558	Mathis, Daniel	New Gretna	6-2-19	1-1-20	2 50
231	Nelson, Isaac	Absecon	6-2-19	1-1-20	2 50
214	Price, Job C.	Atlantic City	6-2-19	1-1-20	2 50
210	Quinn, George	Atlantic City	6-2-19	1-1-20	2 50
209	Robbins, Adelbert	New Gretna	6-2-19	1-1-20	2 50
263	Rose, James	Egg Harbor	6-2-19	1-1-20	2 50
288	Robbins, L. D.	New Gretna	6-2-19	1-1-20	2 50
289	Robbins, Charles	New Gretna	6-2-19	1-1-20	2 50
205	Somers, Enoch	Ocean City	6-2-19	1-1-20	2 50
207	Stephens, William	Somers Point	6-2-19	1-1-20	2 50
208	Sooy, Leonard	New Gretna	6-2-19	1-1-20	2 50
212	Scull, Thomas	Leeds Point	6-2-19	1-1-20	2 50
217	Sears, Norris	Atlantic City	6-2-19	1-1-20	2 50
236	Strickland, Elias	Leeds Point	6-2-19	1-1-20	2 50
240	Smith, Gilbert	Leeds Point	6-2-19	1-1-20	2 50
251	Scull, Gillion	Scullville	6-2-19	1-1-20	2 50
252	Smith, Abel	Scullville	6-2-19	1-1-20	2 50
205	Steelman, Job H.	Scullville	6-2-19	1-1-20	2 50
206	Somers, Bolce	Scullville	6-2-19	1-1-20	2 50
297	Smith, John H.	Scullville	6-2-19	1-1-20	2 50
552	Sooy, E. M.	Leeds Point	6-2-19	1-1-20	2 50
293	Scull, John C.	Scullville	6-2-19	1-1-20	2 50
204	Thompson, Harry	Ocean City	6-2-19	1-1-20	2 50
250	Thomas, Jesse	Scullville	6-2-19	1-1-20	2 50
258	Tallman, Eugene	Scullville	6-2-19	1-1-20	2 50
220	Webber, Edward A.	Atlantic City	6-2-19	1-1-20	2 50

OYSTER BED LEASES Department of the Maurice River Cove

LESSEE	ADDRESS	Lease No.	Acreage	Amount of Lease	Date	Term	SECTION NUMBER			
							Sec. A	Sec. B	Sec. C	Sec. D
Armstrong, George	Delmont	4	10	\$5 00	6-20-18	1 yr.	.....	67	.....	.....
Bateman & Blizard	Port Norris	40	107	51 50	6-20-18	1 yr.	.....	.....	262-356-553	190-251-261
Bateman, Martin	Port Norris	22	98	49 00	6-20-18	1 yr.	.....	104-158	.....	148-461
Bateman, J. Roberts	Mauricetown	21	108	84 00	6-20-18	1 yr.	.....	.....	548-164-242-136-187-97-114-516-403-139	.....
Berry, H. A. & W. J.	Port Norris	44	48	24 00	6-20-18	1 yr.	.....	.....	500	552
Berry, H. A.	Port Norris	45	83	47 50	6-20-18	1 yr.	173	90	369-471	.....
Bradford & Vannaman Est.	Newport	19	31	15 50	6-20-18	1 yr.	.....	.....	274-170	.....
Bradford, Charles L.	Newport	18	176	88 00	6-20-18	1 yr.	.....	.....	590-434-189	611-489-420-170
Hell & Bell	Newport	13	62	31 00	6-20-18	1 yr.	.....	95-138	.....	.....
Brineshultz & Mayhew	Cedarville	30	404	202 00	6-20-18	1 yr.	.....	109-76-77-154	535-558-283-324-455-456-458-504-79-80-81	29-183-331-421
Balley & Pearce	Port Norris	41	40	20 00	6-20-18	1 yr.	.....	248	.....	.....
Bateman, Rebecca, Est.	Newport	30	54	27 00	6-20-18	1 yr.	.....	.....	72-267	112
Bateman, Britton & Jeffries	Newport	31	47	23 50	6-20-18	1 yr.	.....	.....	101-374-232	.....
Bateman & Burt	Cedarville	23	216	108 00	6-20-18	1 yr.	.....	242	254-433-275-273	450-502
Bateman, Diamant & Elmer	Cedarville	24	207	105 50	6-20-18	1 yr.	.....	.....	448-112-499-327-270-268	158-426
Bateman & Emerson	Cedarville	25	175	87 50	6-20-18	1 yr.	148	.....	585-166-167-493	30-513-558
Bateman & Bateman	Cedarville	27	68	34 00	6-20-18	1 yr.	.....	251-110-828	.....	.....
Bateman & Swing	Cedarville	26	9	5 00	6-20-18	1 yr.	.....	.....	.....	77
Bell, George C., Sr.	Newport	11	47	22 00	6-20-18	1 yr.	179	276	.....	310-402
Bateman & Shull	Newport	9	6	5 00	6-20-18	1 yr.	.....	.....	.....	168

OYSTER BED LEASES
DEPARTMENT OF THE MAURICE RIVER COVE—Continued

LESSEE	ADDRESS	Lease No.	Acreage	Amount of Lease	Date	Term	SECTION NUMBER			
							Sec. A	Sec. B	Sec. C	Sec. D
Bateman, Luther	Newport	28	320	\$100 00	6-20-18	1 yr.	264	230	343-354- 627-266- 73-451- 534-450- 447-264- 265	575-388
Bateman & Welden	Newport	29	91	45 50	6-20-18	1 yr.	11	251	238-239	136-321
Bell, George C. J.	Bivalve	12	166	88 50	6-20-18	1 yr.	.....	280-94	531-271	527- 82- 530-427- 462
Bradford, Elwood	Newport	17	16	8 00	6-20-18	1 yr.	.....	.....	82	.....
Cox, Champion H. & Lilburn ..	Leesburg	72	48	24 00	6-20-18	1 yr.	183-293	.....	.....	.....
Cain, Ellis L.	Port Norris	88	38	19 00	6-20-18	1 yr.	301	.....	.....	277- 96
Clark, William W.	Port Norris	56	20	10 00	6-20-18	1 yr.	.....	.....	.....	563
Campbell, Clement L.	Bridgeton	71	75	37 50	6-20-18	1 yr.	.....	.....	122-352	562-306- 75
Cosler, W. W. & W. M.	Dividing Creek	82	31	13 00	6-20-18	1 yr.	.....	.....	480	70-367
Campbell & Buzby	Port Norris	61	271	185 50	6-20-18	1 yr.	.....	121-115	208-315- 313-144- 121-111- 203	500-146- 147-105
Chew, William V.	Port Norris	85	10	5 00	6-20-18	1 yr.	.....	.....	207	.....
Chew & Bateman	Port Norris	86	39	22 50	6-20-18	1 yr.	.....	.....	202	177
Chew, Bateman & Brandriff ..	Port Norris	87	20	10 00	6-20-18	1 yr.	.....	.....	.....	587
Compton & Roe	Leesburg	90	94	47 00	6-20-18	1 yr.	215	.....	.....	385-381- 383
Campbell & Sheppard	Newport	70	128	66 50	6-20-18	1 yr.	.....	14	028-308	327-122
Clark & Clark	Port Norris	74	154	83 50	6-20-18	1 yr.	125	.....	45-549- 526-527	492-554
Campbell, Winfield A.	Bivalve	62	42	21 00	6-20-18	1 yr.	.....	.....	58- 32- 10-301	.....
Cook, E. J.	Port Norris	55	143	74 00	6-20-18	1 yr.	.....	112-165- 240-210- 211	518-7-206- 60-519	441
Evans, Evans & Evans	Millville	104	197	98 50	6-20-18	1 yr.	273	195	.....	382-583
Garrison, Joseph M.	Port Norris	116	29	14 50	6-20-18	1 yr.	210	.....	.....	.....

OYSTER BED LEASES
DEPARTMENT OF THE MAURICE RIVER COVE—Continued

LESSEE	ADDRESS	Lease No.	Acreage	Amount of Lease	Date	Term	SECTION NUMBER			
							Sec. A	Sec. B	Sec. C	Sec. D
Garrison, Frank L.	Dividing Creek	123	24	\$12 00	6-20-18	1 yr.	.....	.....	19	369
Gandy, Miles	Cedarville	120	214	107 00	6-20-18	1 yr.	.....	.....	279-464- 263-282- 462	422-300- 173-174- 283
Garrison, Richard B.	Port Norris	124	119	29 50	6-20-18	1 yr.	69-171	182-19	302-229	.....
Gaskill, George S.	Port Norris	119	57	28 50	6-20-18	1 yr.	.....	.....	205	433-550
Gaskill, Jesse, Jr.	Port Norris	117	5	5 00	6-20-18	1 yr.	.....	.....	.....	187
Hara, Harry O.	Port Norris	164	20	10 00	6-20-18	1 yr.	.....	.....	428	.....
Harrington & Yates	Port Norris	163	28	14 00	6-20-18	1 yr.	.....	.....	155	106
Hand & Ladow	Port Norris	141	30	15 00	6-20-18	1 yr.	.....	.....	78	526
Hamers, Mc'lellan	Newport	152	39	19 50	6-20-18	1 yr.	.....	.....	.....	16-163- 377
Hand & Campbell, Est.	Bridgeton	148	167	83 50	6-20-18	1 yr.	.....	.....	400-421	317-428- 505
Haley, Clarence	Mauricetown	138	34	17 00	6-20-18	1 yr.	.....	156	.....	.....
Hunter, William C.	Haleville	153	22	11 00	6-20-18	1 yr.	205-212	.....	.....	.....
Hunter, Aaron S.	Haleville	154	22	11 50	6-20-18	1 yr.	204-206	.....	.....	.....
Hunter & Hunter	Haleville	155	57	28 50	6-20-18	1 yr.	.....	66	350	155-358
Hollinger & Bradford	Port Norris	159	21	10 50	6-20-18	1 yr.	.....	.....	236	.....
Johnson & Bateman	Cedarville	175	199	99 50	6-20-18	1 yr.	147	.....	93-285- 454	340-496
Johnson, Charles W.	Newport	176	73	30 50	6-20-18	1 yr.	.....	252	.....	263
Joslin & Johnson	Newport	180	12	6 00	6-20-18	1 yr.	.....	.....	639	.....
Joslin, Benjamin S.	Newport	179	26	13 00	6-20-18	1 yr.	.....	.....	.....	97- 98
Lore & Lore	Cedarville	187	156	79 00	6-20-18	1 yr.	.....	82	395	491- 59- 60-444
Lee & Newcombe	Port Norris	193	10	5 00	6-20-18	1 yr.	.....	274	.....	.....
Loper, George M.	Dividing Creek	199	21	10 50	6-20-18	1 yr.	.....	.....	.....	397-412
Lake, J. Hamblitt	Port Norris	197	145	72 50	6-20-18	1 yr.	.....	92	171- 84 623-561- 109	.....
Moore & Newcombe	Port Norris	215	10	5 00	6-20-18	1 yr.	.....	277	.....	.....
Meerwald, A. J.	South Dennis	221	12	6 00	6-20-18	1 yr.	55-56	.....	.....	.....
Moore, Samuel K.	Falton	212	48	24 00	6-20-18	1 yr.	.....	.....	.....	305
Messick & Isaman	Blvalve	210	21	10 50	6-20-18	1 yr.	.....	.....	293	.....
McDaniels, Howard	Leesburg	208	55	26 50	6-20-18	1 yr.	.....	.....	489	299-338

OYSTER BED LEASES
DEPARTMENT OF THE MAURICE RIVER COVE—Continued

LESSEE	ADDRESS	Lease No.	Acres	Amount of Lease	Date	Term	SECTION NUMBER			
							Sec. A	Sec. B	Sec. C	Sec. D
Messick, Claude	Blvalve	211	40	\$21 00	6-20-18	1 yr.	.....	215	610	.....
Morc, Robert	Bridgeton	220	175	87 50	6-20-18	1 yr.	150	.....	115-521	187-329
McDaniels, John	Port Norris	205	25	12 50	6-20-18	1 yr.	.....	.....	165	.....
Newcombe & Campbell	Port Norris	230	65	34 00	6-20-18	1 yr.	.....	.....	477	397
Newcombe, Lewis B.	Cedarville	236	66	33 00	6-20-18	1 yr.	.....	.....	87	45- 65-
Newcombe & Yates	Port Norris	232	19	9 50	6-20-18	1 yr.	.....	.....	.....	337-102
Newcombe, Olin W.	Port Norris	231	166	86 00	6-20-18	1 yr.	.....	171-228-	.....	449
Newcombe, G. M. D. & S. H.,	Newport	239	167	83 50	6-20-18	1 yr.	.....	231-114	443-135-	301-439-
Orr, Mark L.	Dividing Creek	245	5	5 00	6-20-18	1 yr.	.....	.....	141-316	135
Polhamus, Alfred & Oscar ..	Leesburg	249	22	11 00	6-20-18	1 yr.	.....	.....	243-318-	352
Pepper & Pepper	Port Norris	261	127	63 50	6-20-18	1 yr.	.....	111-221	422	118
Peace, William M.	Port Norris	253	31	15 50	6-20-18	1 yr.	.....	.....	.....	.....
Peterson, George C.	Newport	255	123	61 50	6-20-18	1 yr.	.....	.....	.....	34-478-
Peterson & Bateman	Newport	254	143	71 50	6-20-18	1 yr.	.....	107-108	.....	133-189-
Petit, Charles	Blvalve	250	25	13 00	6-20-18	1 yr.	.....	225	180	140
Rowley & McDaniel	Port Norris	207	17	8 50	6-20-18	1 yr.	.....	.....	338-588	202
Robbins, George	Port Norris	279	247	123 00	6-20-18	1 yr.	100-202	71-129	304- 57	520-324-
Robbins, Geo., Jr., & Nor-	Port Norris	280	19	9 50	6-20-18	1 yr.	.....	.....	188-192	78
mand	Port Norris	273	36	18 00	6-20-18	1 yr.	.....	.....	.....	120-201-
Robbins & O'Neal	Port Norris	287	176	88 00	6-20-18	1 yr.	58	.....	.....	212
Riggin, Walter C., Est.	Port Norris	288	41	20 50	6-20-18	1 yr.	191	.....	.....	.....
Riggin & Riggin, Est.	Port Norris	280	84	17 00	6-20-18	1 yr.	.....	.....	.....	.....
Riggin, Chas. & E. M.	Port Norris	290	101	43 50	6-20-18	1 yr.	.....	.....	.....	.....
Riggin, Edward M.	Port Norris	291	93	45 50	6-20-18	1 yr.	.....	.....	.....	.....
Riggin, Charles M.	Port Norris	280	83	41 50	6-20-18	1 yr.	.....	.....	.....	.....
Riggin, Riggin, Riggin &	Port Norris	280	83	41 50	6-20-18	1 yr.	.....	.....	.....	.....
Riggin, Est.	Port Norris	280	83	41 50	6-20-18	1 yr.	.....	.....	.....	.....

OYSTER BED LEASES
DEPARTMENT OF THE MAURICE RIVER COVE—Continued

BOARD OF SHELL FISHERIES.

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LESSEE	ADDRESS	Lease No.	Acreage	Amount of Lease	Date	Term	SECTION NUMBER			
							Sec. A	Sec. B	Sec. C	Sec. D
Sharp, Ira P.	Vineland	298	132	\$66 50	6-20-18	1 yr.	113-295	.....	6-8	304
Stites, Gilbert & John	Dragston	327	26	13 00	6-20-18	1 yr.	.....	.....	.....	279-300
Sutter, Harry	Port Norris	328	47	23 50	6-20-18	1 yr.	115-167	.....	.....	007
Sharpless, Maurice	Dorchester	308	12	7 00	6-20-18	1 yr.	.....	.....	.....	309
Sheppard, Ralph A.	Bivalve	308	18	9 00	6-20-18	1 yr.	.....	.....	257	.....
Shull, John L.	Newport	323	227	113 00	6-20-18	1 yr.	234	83-84	607-85- 237-329	282- 64- 172-601
Smith, Henry C.	Newport	314	80	45 00	6-20-18	1 yr.	.....	.....	272-298- 452	.....
Sheppard & Smith	Newport	313	74	42 50	6-20-18	1 yr.	.....	.....	615	546
Sheppard, S. Ware	Newport	312	78	39 00	6-20-18	1 yr.	227	.....	415-416- 410	129
Sharp, J. T. & W. L.	Port Norris	305	96	48 00	6-20-18	1 yr.	214-230	140	.....	38- 29
Turpin & Collins	Bridgeton	346	11	5 50	6-20-18	1 yr.	184	.....	.....	.....
Veale & Loper	Dividing Creek	352	211	104 00	6-20-18	1 yr.	.....	125-170- 203	353-457- 490	126-182- 127
Veale, William	Dividing Creek	351	15	7 50	6-20-18	1 yr.	.....	243	.....	.....
Westcott & Trenchard	Fairton	357	157	80 50	6-20-18	1 yr.	.....	36	140-640	57-58-525
Willis, Frank L.	Edarville	360	43	22 50	6-20-18	1 yr.	.....	.....	.....	471-551
Yates, G. Christy	Port Norris	367	335	108 00	6-20-18	1 yr.	.....	227-278	392-350- 194- 77- 494-424- 891	164-121- 111-298- 224-198
Adams & Cobb	Port Norris	2	36	18 00	6-20-19	1 yr.	.....	.....	.....	495
Armstrong, George	Delmont	4	10	5 00	6-20-19	1 yr.	.....	67	.....	.....
Adams, J. Wesley	Port Norris	1	89	44 50	6-20-19	1 yr.	203	174-226	68-154	195
Berry, Stultz, & Walters, J.,	Port Norris	45	131	65 50	6-20-19	1 yr.	173	90	360-471- 500	552
Bradford, Charles L.	Newport	18	176	88 00	6-20-19	1 yr.	.....	.....	500-434- 134	611-489- 420-170
Bowker & Bowker	Dividing Creek	39	31	15 50	6-20-19	1 yr.	.....	78	364	.....
Bowker, Charles	Dividing Creek	38	48	24 00	6-20-19	1 yr.	.....	201	.....	241-443
Bateman, Luther	Newport	28	270	135 00	6-20-19	1 yr.	264	250	.....	388
									343-354- 451-447- 459-627- 73-264- 265-268	

OYSTER BED LEASES
DEPARTMENT OF THE MAURICE RIVER COVE—Continued

LESSEE	ADDRESS	Lease No.	Acreage	Amount of Lease	Date	Term	SECTION NUMBER			
							Sec. A	Sec. B	Sec. C	Sec. D
Bateman & Welden	Newport	29	67	\$33 50	6-20-19	1 yr.	11	.....	288-239	136-321
Bateman, Rebecca, Est.	Newport	30	54	27 00	6-20-19	1 yr.	.....	.....	72-267	112
Bateman, Brittain & Jeffries,	Port Norris	31	47	23 50	6-20-19	1 yr.	.....	.....	191-282-	.....
									874	
Bateman & Burt	Cedarville	23	216	108 00	6-20-19	1 yr.	.....	242	275-433-	450-502
									254-273	
Bateman, Diamant & Elmer..	Cedarville	24	207	103 50	6-20-19	1 yr.	.....	.....	327-448-	158-426
									490-112-	
									268-270	
Bateman & Emerson	Cedarville	25	159	79 50	6-20-19	1 yr.	148	.....	493-166-	30-513-
									167-585	266
Bateman & Swing	Cedarville	26	9	5 00	6-20-19	1 yr.	.....	.....	.....	77
Bateman & Bateman	Cedarville	27	68	34 00	6-20-19	1 yr.	.....	.....	110-251-	.....
									323	
Blizzard, George M.	Cedarville	40	39	18 00	6-20-19	1 yr.	.....	.....	506	.....
Bell & Newcombe	Port Norris	13	80	38 50	6-20-19	1 yr.	.....	96	.....	496-310-
									.....	402
Brinehults & Mayhew	Cedarville	35	404	202 00	6-20-19	1 yr.	.....	76- 60-	324-455-	183-331-
								154-169	456-458-	421- 29
									535-558-	
									594- 79-	
									80-81-283	
									97-114-	
Bateman, J. Roberts	Mauricetown	21	207	136 50	6-20-19	1 yr.	.....	113	136-187-	.....
									164-242-	
									403-516-	
									548-552-	
									339-318	
									523	
Burt, Alonzo	Cedarville	47	16	8 50	6-20-19	1 yr.	.....	.....	.....	.....
Blackman, Blackman & Berry,	Port Norris	83	58	29 00	6-20-19	1 yr.	84	.....	.....	.....
Blackman & Blackman	Port Norris	34	153	75 00	6-20-19	1 yr.	.....	286	840-342	94-532
Bell, George C.	Newport	11	6	5 00	6-20-19	1 yr.	.....	276	.....	.....
Bell, George C. J.	Bivalve	12	166	88 50	6-20-19	1 yr.	.....	230- 94	531-271	527- 82-
									.....	530-427-
									82	462
Bradford, Elwood	Newport	17	16	8 00	6-20-19	1 yr.	.....	.....	.....	.....

OYSTER BED LEASES
DEPARTMENT OF THE MAURICE RIVER COVE—Continued

LESSEE	ADDRESS	Lease No.	Acreage	Amount of Lease	Date	Term	SECTION NUMBER			
							Sec. A	Sec. B	Sec. C	Sec. D
Bailey & Peace	Port Norris	41	40	\$20 00	6-20-19	1 yr.	.....	248	.....	.....
Bowker, Thomas	Port Norris	37	61	80 50	6-20-19	1 yr.	259	.....	363	.....
Bateman & Blizard	Port Norris	82	104	82 00	6-20-19	1 yr.	.....	.....	609-624- 262-356- 553	.....
Bateman, Morton	Port Norris	22	98	40 00	6-20-19	1 yr.	.....	104-158	.....	148-481
Bradford, Lemuel	Newport	15	177	88 50	6-20-19	1 yr.	.....	.....	70-71-430	470-351- 438-143- 285
Berry, Chas. & Philip	Port Norris	42	112	60 50	6-20-19	1 yr.	.....	117	522-203- 870-501	.....
Bell, George C., Jr.	Blivalve	12	183	91 50	6-20-19	1 yr.	.....	126-251- 94-230	531-271	462- 82- 530-427
Berry, Stults	Port Norris	46	265	139 00	6-20-19	1 yr.	176-181	213	510-541- 542- 12- 218-871- 413	431-565- 145-286- 806
Bradford, Lucius E.	Newport	16	62	31 00	6-20-19	1 yr.	.....	247	.....	252
Chew, William V.	Port Norris	85	10	5 00	6-20-19	1 yr.	.....	.....	207	.....
Chew & Bateman	Port Norris	86	89	19 50	6-20-19	1 yr.	.....	.....	202	177
Chew, Bateman & Brandriff,	Port Norris	87	21	11 00	6-20-19	1 yr.	.....	.....	.....	587
Campbell & Powell	Port Norris	94	113	56 50	6-20-19	1 yr.	.....	103	108-412	165-464- 541
Cain, Ellis L.	Port Norris	88	88	19 00	6-20-19	1 yr.	801	.....	.....	277- 96
Campbell & Busby	Port Norris	61	271	135 50	6-20-19	1 yr.	.....	115-121	203-208- 313-315- 111-121- 144	105-146- 147-500
Campbell, Clemen L., Est. ..	Bridgeton	71	75	87 50	6-20-19	1 yr.	.....	.....	122-352	75-366- 562
Campbell, A. B.	Newport	65	23	11 50	6-20-19	1 yr.	.....	112-165- 240-210- 211	518-7-206- 69-519	441
Corson & Buckmaster	Port Norris	83	21	11 00	6-20-19	1 yr.	.....	.....	.....	319
Covert & Lee	Leesburg	89	272	136 00	6-20-19	1 yr.	54-111- 131	279-280	.....	479-485
									442-312- 320-582	35

OYSTER BED LEASES
DEPARTMENT OF THE MAURICE RIVER COVE—Continued

LESSEE	ADDRESS	Lease No.	Acreage	Amount of Lease	Date	Term	SECTION NUMBER			
							Sec. A	Sec. B	Sec. C	Sec. D
Compton & Roe	Leesburg	90	112	\$56 00	6-20-19	1 yr.	215	.....	528	381-383-385 316-490
Clark, Joshua	Port Norris	58	55	97 00	6-20-19	1 yr.	.....	.....	300	.....
Chance, E. W.	Mauricetown	76	70	35 00	6-20-19	1 yr.	51-209	224	142-373	.....
Campbell, James	Mauricetown	68	47	23 50	6-20-19	1 yr.	.....	.....	400-401-516	.....
Donnelly & Donnelly, Est.	Helserville	99	145	72 50	6-20-19	1 yr.	284-158-164-165	.....	.....	540
Evans, Evans & Evans	Millville	104	217	108 50	6-20-19	1 yr.	273	195	435	382-583
Earl, Earl & Earl	Port Norris	105	36	20 00	6-20-19	1 yr.	.....	143	625	.....
Filler, Frank	Dennisville	108	24	19 50	6-20-19	1 yr.	24	.....	.....	.....
Ferguson & Ferguson	Port Norris	107	21	10 50	6-20-19	1 yr.	.....	.....	.....	116-117
Garrison, Daniel C.	Helserville	118	89	46 00	6-20-19	1 yr.	178	217	508-530-616	424
Garrison, Joseph M.	Port Norris	121	29	14 50	6-20-19	1 yr.	210	.....	.....	.....
Gaskill, John	Newport	124	347	173 50	6-20-19	1 yr.	52-213-833	267	611-444-476-502	294-486
Gandy, Miles	Cedarville	120	193	96 50	6-20-19	1 yr.	.....	.....	404-263-270-402	300-422-173-174-283
Garrison, Richard	Port Norris	123	119	59 50	6-20-19	1 yr.	69-171	19-182	220-362	.....
Gandy, Van Gilder & Hillman,	Leesburg	125	136	66 50	6-20-19	1 yr.	32-156	.....	460	67-292
Gaskill, George S.	Port Norris	119	57	28 50	6-20-19	1 yr.	.....	.....	295	433-550
Hollinger, George	Port Norris	157	24	12 00	6-20-19	1 yr.	.....	200	292	.....
Hamers, McClellan	Newport	152	30	15 00	6-20-19	1 yr.	.....	.....	.....	163-377
Hand & Ladow	Port Norris	141	30	15 00	6-20-19	1 yr.	.....	.....	78	526
Holmes, Edward	Pierces	187	58	22 00	6-20-19	1 yr.	184-187	.....	.....	.....
Hunter, William C.	Haleyville	153	28	12 00	6-20-19	1 yr.	205-212	.....	.....	.....
Hunter, Aaron S.	Haleyville	154	34	17 00	6-20-19	1 yr.	204-406	.....	276	.....
Hunter & Hunter	Haleyville	155	59	30 50	6-20-19	1 yr.	.....	66	350	155-358
Hand, Est., & Riffin.	Port Norris	142	10	5 00	6-20-19	1 yr.	.....	57	.....	.....
Hand, Harrison, Est.	Port Norris	144	20	10 00	6-20-19	1 yr.	.....	118	578	.....
Hinson, Walter H.	Port Norris	140	22	11 00	6-20-19	1 yr.	269	.....	314	.....
Hand, Berry & Berry	Port Norris	146	161	80 50	6-20-19	1 yr.	189	.....	28-308	157-168
Hand & Benj. Berry	Port Norris	147	92	46 00	6-20-19	1 yr.	.....	122-214	488	.....
Howlett, John J.	C'anden	161	180	94 50	6-20-19	1 yr.	.....	.....	480-503-514	314-528-542

OYSTER BED LEASES
DEPARTMENT OF THE MAURICE RIVER COVE—Continued

LESSEE	ADDRESS	Lease No.	Acres	Amount of Lease	Date	Term	SECTION NUMBER			
							Sec. A	Sec. B	Sec. C	Sec. D
Hoffman, Silas	Port Norris	130	10	\$5 00	6-20-19	1 yr.	.....	.....	43	.....
lland, Constant W.	Port Norris	149	315	157 50	6-20-19	1 yr.	.....	200-270- 58-116- 256-257	310-418	315-378- 456-494- 85-142- 175
Hand & Campbell, Est.	Port Norris	148	167	83 50	6-20-19	1 yr.	.....	.....	409-421	317-428- 505
Hlanson & Bateman	Mauricetown	139	322	161 00	6-20-19	1 yr.	180	.....	305-431- 432-520- 317-479- 90-186- 219-224	130-131- 118
Haley, Clarence	Mauricetown	138	34	17 00	6-20-19	1 yr.	.....	156	.....	.....
Harrington & Yates	Port Norris	163	150	77 50	6-20-19	1 yr.	.....	228-231	155-109- 816	106-471- 451
Johnson & Johnson	Greenwich	177	78	39 00	6-20-19	1 yr.	.....	.....	577	.....
Jeffries, Norman L.	Port Norris	173	230	114 50	6-20-19	1 yr.	.....	212-244	532-301- 231-376- 513	531-103- 501-551
Johnson & Bateman	Cedarville	175	190	99 50	6-20-19	1 yr.	147	.....	93-285- 454	340-496
Jenkins, William	Dividing Creek	174	44	22 00	6-20-19	1 yr.	.....	.....	.....	19
Johnson, Charles W.	Newport	176	73	36 50	6-20-19	1 yr.	.....	252	.....	263
Joslin & Johnson	Newport	180	12	6 00	6-20-19	1 yr.	.....	.....	639	.....
Joslin, Benjamin S.	Newport	179	26	13 00	6-20-19	1 yr.	.....	.....	.....	97- 98
Joslin, Mulford & Mulford ..	Newport	178	60	30 00	6-20-19	1 yr.	.....	.....	240-411- 593	171
Lodge, Frank	Greenwich	185	79	44 50	6-20-19	1 yr.	211	.....	600	364
Lore, Addie	Newport	188	81	40 50	6-20-19	1 yr.	.....	.....	.....	296
Lee, Uriah S.	Leesburg	192	14	7 00	6-20-19	1 yr.	192	.....	.....	.....
Ladow, Hammell	Bridgeton	198	14	7 00	6-20-19	1 yr.	.....	.....	.....	11
Lee & Newcombe	Port Norris	191	10	5 00	6-20-19	1 yr.	.....	274	.....	.....
Lore, Sarah	Atlantic City	187	134	68 00	6-20-19	1 yr.	.....	29	319-429- 441	128-152- 156
Lee & Lee	Port Norris	190	49	23 00	6-20-19	1 yr.	00	134	.....	245-262
Lore & Lore	Cedarville	186	176	88 00	6-20-19	1 yr.	.....	32	395-636	491- 59- 60-444

OYSTER BED LEASES
DEPARTMENT OF THE MAURICE RIVER COVE—Continued

LESSEE	ADDRESS	Lease No.	Acreage	Amount of Lease	Date	Term	SECTION NUMBER			
							Sec. A	Sec. B	Sec. C	Sec. D
Lake, J. Hammitt	Port Norris	195	129	\$64 50	6-20-19	1 yr.	.....	92	623-84- 171-561	134
Loper, George M.	Dividing Creek	197	22	11 50	6-20-19	1 yr.	.....	.....	.....	397-412
Lee, Harry M.	Port Norris	189	98	49 00	6-20-19	1 yr.	.....	234	188-143	144
Moore, Samuel K.	Fairton	212	67	33 50	6-20-19	1 yr.	.....	.....	.....	305-448
More, Robert	Bridgeton	216	175	87 50	6-20-19	1 yr.	150	.....	115-521	187-329
Moore, J., & Newcombe, J. S.,	Port Norris	214	50	25 00	6-20-19	1 yr.	.....	275	.....	.....
Meerwald, A. J.	South Dennis	220	188	96 00	6-20-19	1 yr.	57- 31- 239- 56	96-139	.....	.....
McDaniels, Howard	Leesburg	209	35	17 50	6-20-19	1 yr.	.....	.....	.....	299-338
Moore, Moore, Moore & Moore	Port Norris	208	10	5 00	6-20-19	1 yr.	.....	.....	.....	20
Messick & Iseman	Bivalve	210	21	10 50	6-20-19	1 yr.	.....	.....	293	.....
Messick, Claude	Bivalve	211	12	6 00	6-20-19	1 yr.	.....	215	.....	.....
Mulford & Mulford	Bridgeton	217	603	303 00	6-20-19	1 yr.	90-236	73-130	333-334- 346-529- 14-177- 269-381- 117-120- 125-174	.....
Mulford, Mulford & Mulford, Est.	Bridgeton	218	283	141 50	6-20-19	1 yr.	.....	.....	388-463- 130-131- 330 124	181
Mulford, Ephraim, Est.	Bridgeton	219	14	7 00	6-20-19	1 yr.	.....	.....	.....	.....
Moore, Oscar	Port Norris	213	14	7 00	6-20-19	1 yr.	.....	152	.....	.....
McDaniels & Polhamus	Port Norris	222	21	10 50	6-20-19	1 yr.	.....	.....	492	.....
Newcombe & Stiles	Newport	230	134	67 00	6-20-19	1 yr.	.....	.....	248-422	352
Newcombe, William B.	Newport	234	45	22 50	6-20-19	1 yr.	.....	.....	425-426	.....
Newcombe, Newcombe & Newcombe	Newport	235	110	50 50	6-20-19	1 yr.	.....	131	255-591	411
Newcombe, Adrian B.	Newport	233	162.	81 00	6-20-19	1 yr.	.....	261	414-580- 291-341- 337	169-538
Newcombe & Campbell	Port Norris	230	30	15 00	6-20-19	1 yr.	.....	.....	477	.....
Newcombe, Campbell & Whil- don	Port Norris	50	48	24 00	6-20-19	1 yr.	.....	.....	385	507

OYSTER BED LEASES
DEPARTMENT OF THE MAURICE RIVER COVE—Continued

LESSEE	ADDRESS	Lease No.	Acreage	Amount of Lease	Date	Term	SECTION NUMBER			
							Sec. A	Sec. B	Sec. C	Sec. D
Newcombe & Yates	Port Norris	232	19	\$9 50	6-20-19	1 yr.	.....	.....	.....	449
Newcombe, Peter F.	Newport	237	210	105 00	6-20-19	1 yr.	.....	.....	133-297-427	343-463-162-189
Newcombe, Boardman O. ...	Newport	238	36	18 00	6-20-19	1 yr.	.....	220	601	.....
Nickerson & Sheppard	Port Norris	240	31	15 50	6-20-19	1 yr.	.....	.....	.....	571
Polhamus & Polhamus	Leesburg	249	28	13 00	6-20-19	1 yr.	.....	.....	204	.....
Phillips, William B.	Port Norris	262	19	12 00	6-20-19	1 yr.	256	.....	.....	.....
Pepper & Pepper	Dividing Creek	261	127	63 50	6-20-19	1 yr.	.....	111-221	.....	140-478-34-133-189
Pierce, Pierce & Pierce	Dorchester	260	99	49 50	6-20-19	1 yr.	233-34	.....	345-351-584	547
Peterson & Bateman	Port Norris	254	143	71 50	6-20-19	1 yr.	.....	107-108	304-57-188-192	120-201-212
Peterson, Wm. B. & Jas. ...	Port Norris	252	42	21 00	6-20-19	1 yr.	.....	.....	.....	394
Peterson, William B.	Port Norris	253	203	101 50	6-20-19	1 yr.	.....	109-124-235	307-149-217-303	517
Peterson, Christian J.	Bridgeton	257	24	12 00	6-20-19	1 yr.	.....	.....	.....	423
Peterson, Wm. B. & L. E. ..	Port Norris	251	32	19 50	6-20-19	1 yr.	.....	.....	568	.....
Pashley & Rowley	Port Norris	250	4	5 00	6-20-19	1 yr.	.....	.....	33	.....
Peterson, John C.	Bridgeton	256	217	108 50	6-20-19	1 yr.	.....	.....	.....	578-581-618-28-308-455
Peace, William M.	Fort Norris	258	31	15 50	6-20-19	1 yr.	.....	.....	189	202
Petit & Anderson	Blivalve	263	92	46 00	6-20-19	1 yr.	.....	225	87	45-65-837-102
Peterson, George C.	Newport	255	123	61 50	6-20-19	1 yr.	.....	.....	338-588	73-324-520
Riggin, Edward M.	Port Norris	280	101	50 50	6-20-19	1 yr.	221	69	821	293-493
Riggin, Riggin & Riggin, Est.	Port Norris	286	83	41 50	6-20-19	1 yr.	.....	.....	.....	434
Riggin, Walter C., Est.	Port Norris	287	176	88 00	6-20-19	1 yr.	191	.....	573	289-503-608
Riggin, W. C., Est., & Charles	Port Norris	288	41	20 50	6-20-19	1 yr.	.....	.....	394	61
Riggin, Charles M.	Port Norris	291	93	46 50	6-20-19	1 yr.	.....	193	566	291
Riggin, E. M. & C. M.	Port Norris	289	34	17 00	6-20-19	1 yr.	.....	.....	572	.....
Riggin, John C. & E.	Port Norris	294	41	20 50	6-20-19	1 yr.	.....	.....	.....	504

OYSTER BED LEASES
DEPARTMENT OF THE MAURICE RIVER COVE--Continued

LESSEE	ADDRESS	Lease No.	Acreage	Amount of Lease	Date	Term	SECTION NUMBER			
							Sec. A	Sec. B	Sec. C	Sec. D
Robbins, Geo., Jr., & Nor- mand Rogers, Rogers, Rogers & Rogers	Port Norris Millville	280	19	\$9 50	0-20-19	1 yr.	.....	.....	.....	328
		385	377	188 50	0-20-19	1 yr.	189	8-106	348-377- 461-586- 99-176- 226-347	298- 62- 12- 13- 141
Randolph, Andrew Randolph & Randolph Robbins, Samuel L. Rowley, Lawrence B. Robbins, George, Sr.	Port Norris Port Norris Port Norris Port Norris Port Norris	283	46	23 00	6-20-19	1 yr.	222	64	.....	482
		284	49	24 50	6-20-19	1 yr.	.....	62	246	533
		267	63	31 50	6-20-19	1 yr.	193	.....	.....	255-271
		282	34	17 00	6-20-19	1 yr.	.....	187	.....	124-125
		279	207	103 50	6-20-19	1 yr.	168-202	71-129	470- 89- 440-445	406-506- 561
		322	622	311 00	0-20-19	1 yr.	105-217	149-194	375-420- 453	529-535
Stites, Gilbert & John	Port Norris	327	51	25 50	6-20-19	1 yr.	.....	.....	.....	482-279- 300-309
		208	132	66 00	6-20-19	1 yr.	118-295	.....	0-8	304
Sharp, Ira P.	Vineland	321	150	76 50	6-20-19	1 yr.	210-249	05-172	380-410	176-509
Shropshire & Berry	Port Norris	325	21	10 50	6-20-19	1 yr.	.....	.....	256	.....
Shaw, Howard W.	Leesburg	312	82	43 00	6-20-19	1 yr.	227	.....	410-415- 416	129
Sheppard, S. Ware	Newport	313	84	42 00	6-20-19	1 yr.	.....	.....	615	546
Sheppard & Smith	Newport	314	78	39 00	6-20-19	1 yr.	.....	.....	272-298- 452	.....
Sharp & Williams Sharp, Levi B. Sheppard, Ralph A. Shaw, George Sheppard, Lewis F.	Helserville Helserville Bivalve Leesburg Cedarville	290	43	21 50	6-20-19	1 yr.	.....	74	.....	500
		300	32	16 00	6-20-19	1 yr.	.....	30	.....	418
		308	18	9 00	6-20-19	1 yr.	.....	.....	257	.....
		324	15	1 00	6-20-19	1 yr.	.....	.....	537-565	.....
		310	228	114 00	6-20-19	1 yr.	.....	202	398-344- 116-119- 311	400-497- 180-184- 861
Sheppard & Powell Smith, Norton N. Sharp, John & Walter Snead, Oliver L.	Cedarville Leesburg Port Norris Cedarville	311	44	22 00	0-20-19	1 yr.	.....	.....	617	.....
		315	53	34 50	0-20-19	1 yr.	.....	.....	530	445
		305	96	48 00	0-20-19	1 yr.	230-214	140	.....	38-93
		330	35	18 50	0-20-19	1 yr.	.....	.....	307	.....

OYSTER BED LEASES
DEPARTMENT OF THE MAURICE RIVER COVE—Continued

LESSEE	ADDRESS	Lease No.	Acreage	Amount of Lease	Date	Term	SECTION NUMBER			
							Sec. A	Sec. B	Sec. C	Sec. D
Simpkins, Albert	Cedarville	329	39	19 50	6-20-19	1 yr.	.....	.....	.....	342
Sharp, John W.	Leesburg	301	26	13 00	6-20-19	1 yr.	.....	.....	.....	312
Shull & Sheppard	Newport	331	6	5 00	6-20-19	1 yr.	.....	.....	.....	166
Sutter, Harry	Port Norris	326	51	25 50	6-20-19	1 yr.	115-167	.....	.....	607
Sharp, Zadok, Sr., & Zadok, Jr.	Leesburg	297	38	19 00	6-20-19	1 yr.	50	.....	.....	.....
Turner, James A.	Newport	339	48	24 00	6-20-19	1 yr.	.....	.....	613	452
Turner, May	Newport	340	23	11 50	6-20-19	1 yr.	.....	.....	.....	76-107
Tozour, Charles	Delmont	343	57	27 50	6-20-19	1 yr.	.....	133-150-157	545	.....
Terry, George N.	Millville	337	85	42 50	6-20-19	1 yr.	.....	105-232	.....	.....
Terry & Terry	Port Norris	338	25	12 50	6-20-19	1 yr.	.....	.....	404	.....
Thompson, Somers, Hand & Stiles	Green Creek	345	198	123 00	6-20-19	1 yr.	.....	.....	220	.....
Veale, William	Dividing Creek	351	15	7 50	6-20-19	1 yr.	.....	243	.....	.....
Veale & Loper	Dividing Creek	352	211	105 50	6-20-19	1 yr.	.....	125-170-203	353-458-490	126-127-132
Wallen, David	Fairton	355	22	11 00	6-20-19	1 yr.	.....	.....	437	.....
Wallen, Wallen & Whitaker,	Fairton	356	297	148 50	6-20-19	1 yr.	.....	33-34	235-244-308-309-175-178-230	186-188
Westcott, George W.	Fairton	360	10	5 00	6-20-19	1 yr.	.....	.....	.....	830
Westcott & Trenchard	Fairton	357	156	77 50	6-20-19	1 yr.	.....	36	140-640	57-58-525
Welch, Lilliston & Earl	Bridgeton	362	29	18 00	6-20-19	1 yr.	.....	.....	466	.....
Welch & Lilliston	Bridgeton	361	43	21 50	6-20-19	1 yr.	268	180	.....	.....
Windfohr, Arthur	Port Norris	359	107	53 50	6-20-19	1 yr.	.....	148-181	172	159-477-559
Yates, G. Chrlaty	Port Norris	369	309	154 50	6-20-19	1 yr.	.....	227-278	392-424-494-77-104-350-391	198-398-111-121-164

OYSTER BED LEASES
Department of the Atlantic Coast
Division of Burlington, Ocean and Monmouth Counties

LESSEE	ADDRESS	Ground No.	Acresage	Amount of Lease	Date	Term	SECTION No.
Adams, Ernest G.	New Gretna	67-83-44	5½	\$5 50	6-29-19	1 yr.	
Algor, Devine	Belmar	11-178-137-138- 134-124-126-130					Sec. J
		78-176-178½	18¾	18 75	6-30-19	1 yr.	Sec. A
Allen, E. K.	New Gretna	40	8¾	8 25	6-29-19	1 yr.	Sec. A
Allen, Joseph B.	Tuckerton	25-73	15½	15 50	6-21-19	1 yr.	Sec. A
Allen, Caleb F.	New Gretna	21-39-68-104-	7½	7 50	6-27-19	1 yr.	Sec. A
Allen, C. H.	New Gretna	75-182½-27-B	17½, 100 ft.				Sec. A & B
		76	3½	19 50	7-18-18	1 yr.	Sec. A
Allen, Arnold C.	New Gretna	247	8	3 50	7-20-18	1 yr.	Sec. D
Anderson, Samuel B.	Tuckerton	148-149	18½	18 50	8-1-18	1 yr.	Sec. B
Adams, Elmer	Port Republic	707-745-751-750	20	20 00	8-7-18	1 yr.	Sec. B
Abbott, William	Manahawkin	76	3½	8 50	7-18-18	1 yr.	Sec. A
Allen, Arnold	New Gretna	27-R	200 ft.	2 00	9-12-18	1 yr.	Sec. R
Allen, C. H.	New Gretna	27-28	2	2 00	6-12-18	1 yr.	Sec. J
Bennett, Holmes E.	Belmar	21-22-23-24-			6-29-19	1 yr.	
Bennett, Franklin E.	Belmar	4-5-47-48	18	13 00	6-29-19	1 yr.	Sec. J
		18-6-7-12	4	4 00	6-29-19	1 yr.	Sec. J
Bennett, Henry A.	Belmar	43-49-50-51	3½	8 50	8-7-18	1 yr.	Sec. J
Bloodgood, Willis	Belmar	7-8	2	2 00	8-7-18	1 yr.	Sec. J
Brown, Harvey	Belmar	20	1	1 00	8-7-18	1 yr.	Sec. F
Birdsall, Jesse	Barnegat	3005-3007-3035-					
Bloodgood, C. L.	Perth Amboy	3042	0	9 00	7-9-18	1 yr.	Sec. K
		8017-3020-3030-					
Buchanan, George A.	Perth Amboy	3033-3051	8¾	8 75	7-9-18	1 yr.	Sec. K
		218	2½	2 50	8-20-18	1 yr.	Sec. O
Rowen, Calvin	Tuckerton	X	8	3 00	8-30-18	1 yr.	Sec. D
Beck, Charles W.	Beach Haven	3	8	3 00	9-16-18	1 yr.	Sec. B
Bentall, E. M.	Avon	281	2	2 00	8-18-18	1 yr.	Sec. O
Baker, Harry	Tuckerton	27-28	2	2 00	8-30-19	1 yr.	Sec. J
Rennett, Holmes	Asbury Park	65-192½-3R-2C	7 A, 400 ft.	12 50	6-30-19	1 yr.	Sec. A
Chew, B. W.	New Gretna	70	8¾	8 75	6-20-19	1 yr.	Sec. A
Cranmer, Daniel D.	New Gretna	162	8	3 00	6-17-19	1 yr.	Sec. B
Cavleer, Gilbert	Port Republic	187	1½	1 50	0-27-19	1 yr.	Sec. B
Cavleer, John D.	Port Republic						

OYSTER BED LEASES
DEPARTMENT OF THE ATLANTIC COAST
DIVISION OF BURLINGTON, OCEAN AND MONMOUTH COUNTIES—Continued

LESSEE	ADDRESS	Ground No.	Acres	Amount of Lease	Date	Term	SECTION No.
Cavleer, D. F.	Port Republic	159-151½	5½	\$5 50	6-27-19	1 yr.	Sec. B
Cox, George M.	West Creek	443-854-714	5½	5 75	8-9-18	1 yr.	Sec. E
Conklin, Isaac	Cedar Run	791	6¾	6 75	8-12-18	1 yr.	Sec. E
Cranmer, Harvey G.	New Gretna	184-X	6¾	6 25	8-3-18	1 yr.	Sec. B
Cranmer, Thomas L.	Mayetta	784	9	9 00	8-3-18	1 yr.	Sec. E
Cranmer, James H.	Manahawkin	8	6	6 00	7-6-18	1 yr.	Sec. F
Cranmer, Noah	Manahawkin	717-746	3½	3 50	7-14-18	1 yr.	Sec. E
Cranmer, Thomas	Manahawkin	465-725-740-734-738-704-700-728-752					
Cranmer, Joseph T.	Manahawkin	709-727-733	124	124 00	7-18-18	1 yr.	Sec. E
Cranmer, Chester	Mayetta	813	4	4 00	7-18-18	1 yr.	Sec. E
Cranmer, Harvey G.	Mayetta	762-814	4¾	4 75	8-21-18	1 yr.	Sec. E
Conklin, Lewis A.	Mayetta	785	11	11 00	8-23-18	1 yr.	Sec. E
Cox, J. B.	Cedar Run	499	7	7 00	8-23-18	1 yr.	Sec. E
Clayton, Walter R.	West Creek	1239	2	2 00	8-24-18	1 yr.	Sec. D
Cranmer, Clarence	Toms River	X	9	9 00	8-16-18	1 yr.	Sec. H
Cranmer, Levi	New Gretna	774.2	4	4 00	8-17-18	1 yr.	Sec. H
Cranmer, Samuel	Cedar Run	782	5½	5 50	8-18-18	1 yr.	Sec. E
Cranmer, G. Augustus	Mayetta	790-781	6¾	6 75	8-18-18	1 yr.	Sec. E
Cranmer, Harry	Cedar Run	X	5½	5 50	8-18-18	1 yr.	Sec. E
Cranmer, Albert F.	Staffordsville	X & 40-R	1	1 00	8-18-18	1 yr.	Sec. E
Cranmer, M. L.	New Gretna		5 A & 200 ft.	9 00	9-3-18	1 yr.	Sec. B & E
Cox, William H., Bros.	Mayetta	763-764-766-767-803-804-812-815	50½	50 25	9-10-18	1 yr.	Sec. E
Conklin, Calvin	Tuckerton	258-225-250-300-339	21½	21 50	9-11-18	1 yr.	Sec. O
Cranmer, Rufus	Cedar Run	773-779	10	10 00	8-24-18	1 yr.	Sec. E
Cox, William E.	Manahawkin	757-718-X	12	12 00	9-25-18	1 yr.	Sec. F
Cowperthwait, W. H.	West Creek	642-643-644-687	7¾	7 25	9-30-18	1 yr.	Sec. D & E
Cobb, Thomas	West Creek	433-487-719-736-737-554-1212-1215	78¾	78 25	10-2-18	1 yr.	Sec. D, E & H
Cummings, Silas	Parkertown	638	2	2 00	10-2-18	1 yr.	Sec. E
		474-527	6¾	6 50	10-3-18	1 yr.	Sec. D

OYSTER BED LEASES
DEPARTMENT OF THE ATLANTIC COAST
DIVISION OF BURLINGTON, OCEAN AND MONMOUTH COUNTIES--Continued

LESSEE	ADDRESS	Ground No.	Acreage	Amount of Lease	Date	Term	SECTION No.
Cranmer, Arnold	New Gretna	36-35-17-3-62-85- 263-312-312-306- 1201-1246- 8-9R-02-63- 64-65-66-74- 67-67 1/2 75-R 186-1247-73-R	142 500 ft. 800 ft. 800 ft. 200 ft. 24 A., 175 ft.	\$177 25	10-4-18	1 yr.	Sec. A, B, C & H
Cranmer, Mary J.	New Gretna	760-760-770-806	11 1/4	5 00	10-4-18	1 yr.	Sec. R
Cranmer, Earl	New Gretna	786 776-794-817-778	12	29 00	10-4-18	1 yr.	Sec. B & H
Cranmer, Oliver	West Creek	716	17	11 75	10-6-18	1 yr.	Sec. E
Conklin, Samuel B.	Cedar Run	1226	12	12 00	10-14-18	1 yr.	Sec. E
Cranmer, Ashbrook	Mayetta	496	1 1/4	17 00	10-14-18	1 yr.	Sec. E
Cranmer, Stanley	Mayetta	1230	6	1 50	3-8-19	1 yr.	Sec. E
Cornelius, Leslie	Bayville	80-93-33-173	6	6 00	8-22-19	1 yr.	Sec. H
Cobb, Thomas	West Creek	165-25-R-5-C	4	4 00	8-20-18	1 yr.	Sec. H
Cornelius, James W.	Bayville		6	6 00	9-29-18	1 yr.	Sec. D
Darby, John W.	Tuckerton		11 1/4	11 25	6-30-19	1 yr.	Sec. H
Darby, Allen & Adams	New Gretna		28 A., 1100 ft.				Sec. B
Downs, William F.	New Gretna	198 1/4	2 1/4	64 00	6-29-19	1 yr.	Sec. B
Driscoll, Enoch	Tuckerton	206	1 1/4	2 25	7-2-18	1 yr.	Sec. R
Endicott, Mark	Port Republic	179	2 1/4	1 75	7-10-18	1 yr.	Sec. C
Elsworth, Henry C.	Montclair	1202-1242	92 1/4	2 75	7-2-18	1 yr.	Sec. B
Elsworth, Inga A.	Montclair	1009	105 1/4	92 50	7-8-18	1 yr.	Sec. H
Elsworth, William E.	Montclair	1005-1200	126 3/4	105 50	7-8-18	1 yr.	Sec. H
Elsworth, Henry C.	Montclair	X	75	126 75	7-8-19	1 yr.	Sec. H
Elsworth, Henry C.	Montclair	3011-3032-3037	35	75 00	7-8-18	1 yr.	Sec. N
Elsworth, William E.	Montclair	4001	125	35 00	7-8-18	1 yr.	Sec. K
Elsworth, Henry C.	Montclair	X	50	125 00	9-19-18	1 yr.	Sec. L
Fisk, Lewis A.	Montclair	206	4	50 00	10-22-18	1 yr.	Sec. L
Fisk, Horace	Tuckerton	268	9	4 00	6-29-19	1 yr.	Sec. C
Frazier, Frank	Tuckerton	156	2 1/4	9 00	6-29-19	1 yr.	Sec. C
Feshal, John	Manahawkin	728	8 1/4	2 75	7-20-18	1 yr.	Sec. B
Falkenburg, Wesley	Toms River	1228	6 3/4	8 50	7-18-18	1 yr.	Sec. E
				6 75	8-30-19	1 yr.	Sec. H

OYSTER BED LEASES
DEPARTMENT OF THE ATLANTIC COAST
DIVISION OF BURLINGTON, OCEAN AND MONMOUTH COUNTIES—Continued

LESSEE	ADDRESS	Ground No.	Acres	Amount of Lease	Date	Term	SECTION No.
Felmore, A.	West Creek	607-636-676-707-708-709-711-406	42½	\$42 50	6-28-19	1 yr.	Sec. E
Garrison, Eugene	Tuckerton	201-269-262	10½	10 25	6-29-19	1 yr.	Sec. C
Gaskill, Thos. J. & Son	New Gretna	22-51-97-4-C	14½	14 25	6-29-19	1 yr.	Sec. A
Gale, George E.	Tuckerton	230-207-211	9	9 00	6-29-19	1 yr.	Sec. C
Glant, John	Lanoka	1001-1216-1000	14½	14 50	8-10-18	1 yr.	Sec. G
Grey, John A.	New Gretna	26-59-74-81-91-177½	12%	12 75	8-22-18	1 yr.	Sec. A & B
Gassin, Charles E.	Belmar	3	1	1 00	8-23-18	1 yr.	Sec. J
Gale, Walter E.	Tuckerton	X	5	5 00	8-18-18	1 yr.	Sec. C
Glant, S. T.	Lanoka	30	12	12 00	9-9-18	1 yr.	Sec. G
Glant, William H.	Lanoka	2-1003-1215	23	23 00	8-27-18	1 yr.	Sec. G & H
Glant, Jesse	Lanoka	1217	5%	5 75	8-27-18	1 yr.	Sec. H
Huntley, Charles	Port Republic	142-145-152-151½	21	21 00	6-30-19	1 yr.	Sec. B
Horner, Garwood	New Gretna	40½	5	5 00	6-21-19	1 yr.	Sec. A
Holmes, Edward	Forked River	X	4	4 00	6-14-19	1 yr.	Sec. G
Holmes, Edward L.	Forked River	X	4	4 00	8-7-18	1 yr.	Sec. G
Hewitt, Mary E.	Port Republic	144	1½	1 25	8-7-18	1 yr.	Sec. B
Hazelton, Levn	Manahawkin	X	2	2 00	7-18-18	1 yr.	Sec. E & C
Hickman, Oscar	Tuckerton	276-155	11½	11 75	7-6-18	1 yr.	Sec. B & C
Hammer, Fred	Keyport	4-5-25	42½	42 25	7-7-18	1 yr.	Sec. K
Higbee, Samuel	Port Republic	163	22	22 00	7-10-18	1 yr.	Sec. B
Headley, Parker C.	Tuckerton	804	4	4 00	8-16-18	1 yr.	Sec. C
Holman, Nathaniel	Parkertown	X	1	1 00	8-17-19	1 yr.	Sec. D
Hollingsworth, George	Barnegat	94-10-19-41-36-22-27-10-72	32	82 00	8-24-18	1 yr.	Sec. F
Horner, Isaac	Parkertown	435-436	10½	10 25	12-2-18	1 yr.	Sec. D
Hickman, Wilbur	Port Republic	147-150	2%	2 75	10-18-18	1 yr.	Sec. B
Jones, George & H.	Tuckerton	244-277-279	18½	18 25	6-29-18	1 yr.	Sec. C
Johnson, Theodore	Perth Amboy	300-3004-3016-3021-3031-3050	17%	17 75	7-9-18	1 yr.	Sec. K
Jones, A. H.	West Creek	430-412-675-708-723-742	20½	20 25	8-20-18	1 yr.	Sec. D & E
Jones, William J., Sr.	West Creek	726-624	2½	2 25	8-23-18	1 yr.	Sec. E

BOARD OF SHELL FISHERIES.

OYSTER BED LEASES
DEPARTMENT OF THE ATLANTIC COAST
DIVISION OF BURLINGTON, OCEAN AND MONMOUTH COUNTIES—Continued

LESSEE	ADDRESS	Ground No.	Acres	Amount of Lease	Date	Term	SECTION No.
Johnson, Isiah C.	West Creek	671	5	\$5 00	8-24-18	1 yr.	Sec. E
Jones, Isaac H.	Lanoka	1	10	10 00	11-7-18	1 yr.	Sec. G
Kelly, George G.	West Creek	429-451-448-457- 484-488-491-603- 604-605-644-645- 681-701-713-555- 450-445-611-1248- 1206-1238	163½ 7½	63 50 7 50	7-2-18 9-30-18	1 yr. 1 yr.	Sec. H Sec. D & E
Kelly, James E.	West Creek	482-601-693	7½	11 50	9-30-18	1 yr.	Sec. D & E
Kelly, H. F.	West Creek	613-612-656-682- 692-728	11½	30 75	10-20-18	1 yr.	Sec. E & H
Kelly, H. E.	West Creek	420-483-650-653- 690-695-699-1234	30¾	6 25	8-12-18	1 yr.	Sec. F
Letts, Pruden	Manahawkin	744-754	6¼	8 00	8-12-18	1 yr.	Sec. F
Letts, H. M.	Manahawkin	748	8				
Loveland, B. F.	New Gretna	139-141-71-187½- 180	13½ A, 400 ft.				
Leeds, Risley	Leeds Point	143	3¼	19 75	7-15-18	1 yr.	Sec. B & R
Lampson, Joel	Mayetta	777-819	4	3 25	7-10-18	1 yr.	Sec. B
Morris, William F., Est.	Belmar	18-6-7-12	4	4 00	7-20-18	1 yr.	Sec. E
Mathis, Caleb A.	New Gretna	187-7-R	8 A, 300 ft.	4 00	6-29-13	1 yr.	Sec. J
Mathis, Marvin B.	New Gretna	196½	2¼	12 50	6-29-19	1 yr.	Sec. A
Mathis, Joseph B.	New Gretna	9-179¾	8¼	2 25	8-12-18	1 yr.	Sec. B
Mathis, Alvin	New Gretna	16-24	2	8 25	8-12-18	1 yr.	Sec. B
McCarty, Timothy	Lanoka	18	10	2 00	8-12-18	1 yr.	Sec. A
Maxwell, Grover	New Gretna	183-77	2¼ A, 200 ft. R	10 00	8-13-18	1 yr.	Sec. G
Mathis, J. Frank	Leeds Point	88-63-95	27½	6 25	7-13-18	1 yr.	Sec. B
Mathis, William L.	Tuckerton	270	5	27 50	7-13-18	1 yr.	Sec. B
Martin, Frank	Manahawkin	947	10¼	5 00	7-14-18	1 yr.	Sec. C
Mason, John W.	Keyport	5	10	10 50	7-18-18	1 yr.	Sec. E
Maurer, William	Keyport	41-43-20-0- 37-88	81	10 00	7-8-18	1 yr.	Sec. K
				81 00	7-8-18	1 yr.	Sec. K

OYS'NER BED LEASES
DEPARTMENT OF THE ATLANTIC COAST
DIVISION OF BURLINGTON, OCEAN AND MONMOUTH COUNTIES—Continued

LESSEE	ADDRESS	Ground No.	Acres	Amount of Lease	Date	Term	SECTION No.
Marshall, George & James	Tuckerton	227	8	\$8 00	8-24-18	1 yr.	Sec. C
Marshall, James	Tuckerton	314	5 1/4	5 25	8-24-18	1 yr.	Sec. C
Marshall, Noah	Tuckerton	228	2 3/4	2 75	8-24-18	1 yr.	Sec. C
Mathis, Joseph K.	New Gretna	108 1/4	2 1/4	2 25	9-14-18	1 yr.	Sec. B
Mott, George A.	Tuckerton	157	7 1/2	7 50	9-28-18	1 yr.	Sec. B
Newman, Charles	Belmar.	181-182-183-184	4	4 00	8-20-18	1 yr.	Sec. J
Newman & Algor	Belmar.	163-164-X686- 165-120-192-77- 78-84-92-12-17- 29-30-16-145-157- 152-158-115-116					
		210-266-329	48	48 00	8-30-19	1 yr.	Sec. J
Pullen, Barzitta	Tuckerton	220-228	24 3/4	24 75	8-29-19	1 yr.	Sec. B & O
Pullen, Frank	Tuckerton	30-31-33	2 3/4	2 75	8-29-19	1 yr.	Sec. C
Palmer, Charles H.	Belmar	40-53-59-60	8	8 00	8-29-19	1 yr.	Sec. J
Palmer, John P.	Belmar	600	3 1/4	3 25	7-24-19	1 yr.	Sec. J
Parker, F. S.	Parkertown	1224	5	5 00	8-3-18	1 yr.	Sec. E
Potter, Howell	Bayville	24-25	5	5 00	7-6-18	1 yr.	Sec. H
Parker, Ezra	Barnegat	1002-1252	15 1/2	15 50	7-13-18	1 yr.	Sec. F
Potter, Reuben	Bayville	217-307-273-348- 288-290-1207-					Sec. H
Parker, J. W. & Sons	Tuckerton	286-1241-1244-X 45-47-48-18-83- 52-12	269 1/4	269 50	9-8-18	1 yr.	Sec. D & H
Post, Russell	Keyport	3001-3025-3041- 3046-3049	142 3/4	142 75	7-8-18	1 yr.	Sec. K
Post, H. B.	Perth Amboy	3002-3010-3012- 3013	13 1/4	13 50	7-9-18	1 yr.	Sec. K
Post, William E.	Perth Amboy	9-10-11-12-13- 14-21-22	30 1/4	30 25	7-9-18	1 yr.	Sec. K
Post, William E.	Perth Amboy	731	60	60 00	7-9-18	1 yr.	Sec. K
Pharo, A. W.	West Creek	505	1 1/4	1 25	8-20-18	1 yr.	Sec. D
Parker, Hansell	Parkertown	1221	3 3/4	3 50	8-18-18	1 yr.	Sec. D
Potter, Calvin B.	Bayville	440	5 1/4	5 50	9-9-18	1 yr.	Sec. H
Parker, Henry D.	Tuckerton		8 3/4	8 50	9-10-18	1 yr.	Sec. O

BOARD OF SHELL FISHERIES.

OYSTER BED LEASES
DEPARTMENT OF THE ATLANTIC COAST
DIVISION OF BURLINGTON, OCEAN AND MONMOUTH COUNTIES—Continued

LESSEE	ADDRESS	Ground No.	Acres	Amount of Lease	Date	Term	SECTION No.
Price, Abram	Parkertown	418	4¼	\$4 25	9-12-18	1 yr.	Sec. D
Pharo, Frank	West Creek	404-680-730	5½	5 50	8-28-18	1 yr.	Sec. D
Parker, Hansel & Henry	Parkertown	473	5	5 00	8-29-18	1 yr.	Sec. D
Parker, Henry	Parkertown	452	2½	2 50	8-20-18	1 yr.	Sec. D
Parker, Barton S.	Tuckerton	426-342-326-332	16¾	16 25	10-2-18	1 yr.	Sec. C
Parker & Holman	Parkertown	640	1¼	1 25	9-19-18	1 yr.	Sec. E
Parker, Alex.	Tuckerton	271	6	6 00	10-2-18	1 yr.	Sec. D
Potter, William H.	Beach Haven	X	2	2 00	3-29-19	1 yr.	Sec. D
Parker, Hire	Parkertown	479	2¾	2 75	8-20-18	1 yr.	Sec. D
Quinn, George	Tuckerton	240-248-200-341	13¾	13 25	10-9-18	1 yr.	Sec. C
Rider, A. J. & Son	Tuckerton	233-249-272-264	45¾	45 25	6-30-18	1 yr.	Sec. D
Robbins, L. D.	New Gretna	32-30-190-190½-191-70-4-R	10 A, 700 ft.	23 00	6-27-18	1 yr.	Sec. A & B
Robbins, Charles	New Gretna	5-7-31-94-183¼-185½-70-R	18¾ A, 400 ft. R	28 75	7-29-18	1 yr.	Sec. A & B
Ripley, John	West Creek	455	10	10 00	7-3-18	1 yr.	Sec. D
Rutter & Holman	West Creek	403-498-720-751-556-634-1211-1218	52	52 00	9-5-18	1 yr.	Sec. D, H & E
Ridgway, William H.	Barnegat	8	2	2 00	7-11-18	1 yr.	Sec. F
Ridgway, Oscar	Barnegat	1-13-3	10	10 00	7-17-18	1 yr.	Sec. G
Sawyer, Joseph	Tuckerton	300	25¾	25 25	6-30-18	1 yr.	Sec. D
Salmons, Martha	Staffordville	187	5	5 00	6-28-18	1 yr.	Sec. E
Stites, Elias	Tuckerton	311	7	7 00	6-27-18	1 yr.	Sec. D
Sprague, Phillip R., Est.	West Creek	618-655-683-727	9¾	9 75	8-12-18	1 yr.	Sec. E
Smith, Henry J.	Belmar.	X	2	2 00	8-15-18	1 yr.	Sec. J
Sapp, Joseph E.	Tuckerton	319	17¾	17 75	7-30-18	1 yr.	Sec. D
Spick, James H. & Bro.	Tuckerton	188-134	97¾	97 50	7-21-18	1 yr.	Sec. B
Smith, J. P.	Tuckerton	313	7¾	7 25	7-31-18	1 yr.	Sec. D
Sprague, Edwin B.	Manahawkin	772-779	7¾	7 25	7-18-18	1 yr.	Sec. E
Sapp, Walter E.	Tuckerton	298-320-318-347-253-299	44¾	44 50	7-28-18	1 yr.	Sec. D

OYSTER BED LEASES
DEPARTMENT OF THE ATLANTIC COAST
DIVISION OF BURLINGTON, OCEAN AND MONMOUTH COUNTIES—Continued

LESSEES	ADDRESSES	Commencement	Acres	Amount of Lease	Date	Term	SECTION No.
Soraco, Augustus	Perth Amboy	3009	3%	\$3 75	7-9-18	1 yr.	Sec. K
Smith, Charles A.	Forked River	X	5%	5 75	8-20-18	1 yr.	Sec. G
Stirk, Thomas	Tuckerton	X	2	2 00	8-17-18	1 yr.	Sec. B
Speck, W. Harold	Tuckerton	136	11%	11 75	8-17-18	1 yr.	Sec. B
Sprague, Joel	Beach Haven	287	5	5 00	8-18-18	1 yr.	Sec. D
Seaman, William S.	West Creek	689-688-740	5%	5 25	8-18-18	1 yr.	Sec. E
Speck, James H.	Tuckerton	185	2%	2 75	8-18-18	1 yr.	Sec. B
Soof, Leonard	New Gretna	98-79-B	6%	16 75	9-9-18	1 yr.	Sec. A
Sears, Norris	New Gretna	47-188½-72	1¼ A, 128 ft. B	5 00	9-9-18	1 yr.	Sec. A & B
Soper, Charles H.	Barnegat	9-56-33	10%	10 50	8-24-18	1 yr.	Sec. F
Shinn, Harry S.	West Creek	447-493-494-502- 601-620-638-731	22%	22 25	8-24-18	1 yr.	Sec. D & E
Salmon, Daniel	West Creek	710	2%	2 25	8-28-18	1 yr.	Sec. E
Sprague, Frank M.	West Creek	694-734	2%	2 75	8-29-18	1 yr.	Sec. E
Shinn, Charles R.	Moorestown	497-508-623-744	14%	14 75	10-2-18	1 yr.	Sec. E
Seaman, George W.	West Creek	489-631-696 489-448-1210-	28	23 00	10-4-18	1 yr.	Sec. E
	West Creek	1280	43%	43 50	10-14-18	1 yr.	Sec. E & H
	Beach Haven	863	2	2 00	8-28-19	1 yr.	Sec. D
	Bayville	1223	5%	5 75	7-10-18	1 yr.	Sec. H
	Toms River	XX	150	150 00	12-8-18	1 yr.	Sec. H
	Belmar	74	1	1 00	8-24-19	1 yr.	Sec. J
	Keyport	17-31-33-8	112%	112 50	6-30-19	1 yr.	Sec. K
	Port Republic	161	8	8 00	7-29-18	1 yr.	Sec. B
	Manahawkin	X	4	4 00	7-18-18	1 yr.	Sec. E
	Port Republic	179	2%	2 75	7-2-18	1 yr.	Sec. B
	Perth Amboy	X	1	1 00	7-9-18	1 yr.	Sec. K
	Perth Amboy	3047	8	3 00	7-9-18	1 yr.	Sec. K
	South Amboy	X	15	15 00	9-5-18	1 yr.	Sec. K
	Port Republic	129	8	8 00	9-9-18	1 yr.	Sec. B
	West Creek	1004-1208½ 1240-1245	302%	302 75	8-28-19	1 yr.	Sec. H

BOARD OF SHELL FISHERIES.

OYSTER BED LEASES Department of the Atlantic Coast Division of Atlantic County

LESSEE	ADDRESS	Ground No.	Acreage	Amount of Lease	Date	Term	SECTION NUMBER			
							Sec. A	Sec. B	Sec. C	Sec. D
Adams, John	New Gretna	56	100 ft.	\$1 50	6-20-18	1 yr.	14 Sec. R	.....	.....	.....
Allen, Joseph B.	Ocean City	87	15.19	15 25	6-20-18	1 yr.	.....	443-445- 448-486- 475	.....	.....
Bowen, Samuel G.	Pleasantville	47	10.69	10 75	6-20-18	1 yr.	.....	.....	.....	714-741- 790
Babcock, William	Scullyville	50	3	6 00	6-20-18	1 yr.	106 Sec. E	.....	.....	.....
Bowen, Elwood	Pleasantville	80	5.70	5 75	6-20-18	1 yr.	.....	.....	618-620	.....
Bowen, James C.	Leeds Point	117-118	900 ft. 10.60	15 25	6-20-18	1 yr.	219-254 261-309	.....	.....	124 Sec. R
Babcock, Reuben	Absecon	138	6	6 00	6-20-18	1 yr.	.....	.....	556	.....
Conover, Harry B.	Absecon	16	13	13 00	6-20-18	1 yr.	.....	.....	513-518- 590	.....
Conover, Willis R.	Absecon	43	6.48	6 50	6-20-18	1 yr.	.....	.....	624-592- 650	.....
Conover, Julia	Absecon	45	6.89	6 50	6-20-18	1 yr.	.....	450-453	.....	.....
Conover, Enoch	Absecon	59	1	1 00	6-20-18	1 yr.	.....	466	.....	.....
Conover, John A.	Absecon	62	3	3 00	6-20-18	1 yr.	.....	.....	623	.....
Conover, James	Absecon	63	1	1 00	6-20-18	1 yr.	.....	.....	605	.....
Conover, John W.	Atlantic City	30	1.75	1 75	6-20-18	1 yr.	.....	444	.....	.....
Conover, Samuel	Oceanville	60	1.74	1 75	6-20-18	1 yr.	.....	403	.....	.....
Cavilew, Raymond	Port Republic	69	300 ft.	3 00	6-20-18	1 yr.	118 Sec. R	.....	.....	.....
Cavilew, Howard G.	Port Republic	70	100 ft.	1 00	6-20-18	1 yr.	107 Sec. R	.....	.....	.....
Chew, Benjamin O.	New Gretna	104-105	200 ft. 6.68	9 75	6-20-18	1 yr.	202-208- 204-217	16 Sec. R	.....	.....
Conover, George	Absecon	137	6	6 00	6-20-18	1 yr.	.....	.....	557	.....
Cramer, S. L.	Atlantic City	158	3.62	3 75	6-20-18	1 yr.	267-270- 284	.....	.....	.....
Cavilew, John D.	Port Republic	147	1.50	1 50	6-20-18	1 yr.	237	.....	.....	.....
Cramer, Albert F.	Port Republic	155	3.48	3 50	6-20-18	1 yr.	210-212	.....	.....	.....
Conover, Ward	Absecon	156	3.48	3 50	6-20-18	1 yr.	.....	.....	517-526- 625	.....

OYSTER BED LEASES
DEPARTMENT OF THE ATLANTIC COAST
DIVISION OF ATLANTIC COUNTY—Continued

BOARD OF SHELL FISHERIES.

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LESSEE	ADDRESS	Ground No.	Acreage	Amount of Lease	Date	Term	SECTION NUMBER			
							Sec. A	Sec. B	Sec. C	Sec. D
Conover, Frank	Absecon	169	1.63	\$1 75	6-20-18	1 yr.	.....	434	.....	.....
Cramer, Earl	New Gretna	168	.41	1 00	6-20-18	1 yr.	.....	442	.....	.....
Conover, Harry	Atlantic City	166	3	3 00	6-20-18	1 yr.	.....	471	.....	.....
Dennis, Georgetta	Scullville	2	5	10 00	6-20-18	1 yr.	24 Sec. E	.....	.....	.....
Dennis, Harry	Scullville	7	4.45	9 00	6-20-18	1 yr.	48 Sec. E	.....	.....	.....
Downs, William	New Gretna	28-27	450 ft.	7 50	6-20-18	1 yr.	5-6-72	.....	.....	.....
							Sec. B	.....	.....	.....
Darby, John W.	Atlantic City	162	2	2 00	6-20-18	1 yr.	209	.....	.....	.....
Doughty, F. F.	Absecon	189	5	10 00	6-20-18	1 yr.	25 Sec. E	.....	.....	.....
Doughty, C. Edward	Oceanville	23	4.90	5 00	6-20-18	1 yr.	.....	538-540-563	.....	.....
Field, George	Atlantic City	21	200 ft.	3 00	6-20-18	1 yr.	30 Sec. R	.....	.....	.....
Giberson, Chester	Leeds Point	180-181	200 ft.	4 00	6-20-18	1 yr.	246	111 Sec. R	.....	.....
Giberson, Harry	Leeds Point	176	1.87	2 25	6-20-18	1 yr.	247	.....	.....	.....
Gray, John A.	New Gretna	171	2.13	3 00	6-20-18	1 yr.	19-20 Sec. R	.....	.....	.....
Gunnle, Louis	Somers Point	32	200 ft.	4 00	6-20-18	1 yr.	163 Sec. F	.....	.....	.....
Giberson, S. W.	Absecon	44	12.88	12 50	6-20-18	1 yr.	432-435-442	509-510-525	.....	.....
Giberson, Daniel	Absecon	64	1.74	1 75	6-20-18	1 yr.	.....	501	.....	.....
Griffith, Lewis	Absecon	151	.80	1 00	6-20-18	1 yr.	.....	604	.....	.....
Gaskille, Thomas & Jesse	New Gretna	88	1.50	1 50	6-20-18	1 yr.	211	.....	.....	.....
Garrison, Dennie	Scullville	135-136	8	10 00	6-20-18	1 yr.	15 Sec. E	.....	.....	.....
							157 Sec. F	.....	.....	.....
Hammell, W. A.	Absecon	14	6.94	7 00	6-20-18	1 yr.	.....	.....	527-559-593-602	.....
Hammell, O. P.	Absecon	20	12.19	12 25	6-20-18	1 yr.	.....	.....	580-590-606-603-608	.....
Hamilton, Thomas J.	Absecon	42	5	10 00	6-20-18	1 yr.	56 Sec. E	.....	.....	.....
Hammell, Frank	Absecon	65	1.50	1 50	6-20-18	1 yr.	.....	.....	598	758-759-764
Hackett, Frank	Linwood	49	12.88	18 00	6-20-18	1 yr.	.....	.....	.....	762-766
Hewitt, Mary	Port Republic	57	1.85	1 50	6-20-18	1 yr.	228	.....	.....	.....

OYSTER BED LEASES
DEPARTMENT OF THE ATLANTIC COAST
DIVISION OF ATLANTIC COUNTY—Continued

LESSEE	ADDRESS	Ground No.	Acres	Amount of Lease	Date	Term	SECTION NUMBER			
							Sec. A	Sec. B	Sec. C	Sec. D
Horton, John	Pleasantville	51	.93	\$1 00	6-20-18	1 yr.	.....	.....	.....	748
Hewitt, Morris	Pleasantville	52	9.56	9 75	6-20-18	1 yr.	.....	.....	.....	775-779-781
Hickman, Smith	Scullville	74	2	4 00	6-20-18	1 yr.	107 Sec. E	.....	.....	.....
Horton, Robert	Pleasantville	75	2.16	2 25	6-20-18	1 yr.	.....	.....	.....	716
Horton, Willis	Pleasantville	76	4.13	4 25	6-20-18	1 yr.	.....	.....	.....	726
Horton, Charles M.	Pleasantville	90	5.72	5 75	6-20-18	1 yr.	.....	.....	.....	713-751
Horton, Howard	Pleasantville	100-101	12.82	17 25	6-20-18	1 yr.	115 Sec. E	.....	.....	712-752-757
Holdskon, Edward	Brigantine	85	5.95	6 00	6-20-18	1 yr.	.....	416-417-419-425-428	.....	.....
Holdskon, Harry	Brigantine	164	1	1 00	6-20-18	1 yr.	.....	420	.....	.....
Holdskon, William	Brigantine	160	3	3 00	6-20-18	1 yr.	.....	415	.....	.....
Hewitt, Nelson	Port Republic	92	1.85	2 00	6-20-18	1 yr.	224	.....	.....	.....
Hickmon, Clark	Port Republic	149	100 ft.	3 00	6-20-18	1 yr.	67 Sec. R	.....	.....	.....
Hickman, Wilbur	Port Republic	150	100 ft.	4 00	6-1-18	1 yr.	153 Sec. R	.....	.....	.....
Higbee, Allen C.	Leeds Point	96-97	400 ft.	9 00	6-20-18	1 yr.	252	110 Sec. R	.....	.....
Higbee, James W.	Leeds Point	110-111	200 ft.	7 25	6-20-18	1 yr.	255	109 Sec. R	.....	.....
Higbee, Somers T.	Leeds Point	112-113-114	800 ft.	13 50	6-20-18	1 yr.	248-251-288-289-306	60-108 Sec. R	.....	.....
Higbee, John G.	Leeds Point	115-116	1200 ft.	16 00	6-20-18	1 yr.	250	123 Sec. R	.....	.....
Holdskon, Samuel	Longport	168	2.16	2 25	6-20-18	1 yr.	.....	423	.....	.....
Holdskon, John W.	Atlantic City	179	2.67	2 75	6-20-18	1 yr.	.....	418-421	.....	.....
Jeffers, Benjamin C.	Scullville	5	4	8 00	6-20-18	1 yr.	2 Sec. E	.....	544	.....
Jacobson, Charles	Oceanville	77	1.58	1 75	6-20-18	1 yr.	.....	.....	.....	784
Kenler, A. V.	Somers Point	88	5 30	6 00	6-20-18	1 yr.	.....	.....	.....	.....
Kenhule, Louis	Atlantic City	146	5	10 00	6-20-18	1 yr.	29 Sec. E	.....	.....	.....
Lashley, Clarence	Scullville	1	2	4 00	6-20-18	1 yr.	100 Sec. E	.....	.....	.....

OYSTER BED LEASES
DEPARTMENT OF THE ATLANTIC COAST
DIVISION OF ATLANTIC COUNTY—Continued

LESSEE	ADDRESS	Ground No.	Acres	Amount of Lease	Term	E. of F.	SECTION NUMBER			
							Sec. A	Sec. B	Sec. C	Sec. D
Leeds, Wilmer	Oceanville	15	5.59	\$5 75	8-20-18	1 yr.	.....	.....	506-539-542	.....
Leeds, Larner	Leeds Point	22	2.50	2 50	8-20-18	1 yr.	242	.....	.....	.....
Leeds, Charles	Leeds Point	24	4.15	4 25	8-20-18	1 yr.	253-259-266	.....	.....	.....
Leeds, Albert	Leeds Point	25	4	4 00	8-20-19	1 yr.	3000	.....	.....	.....
Leeds, R. K.	Leeds Point	170	2	2 00	8-20-19	1 yr.	289	.....	.....	.....
Leeds, Bisle	Leeds Point	174	.74	1 00	8-20-19	1 yr.	263	.....	.....	.....
Leeds, Cortes	Leeds Point	175	1	1 00	8-20-19	1 yr.	307	.....	.....	.....
Lind, William	Brigantine	94	2	2 00	8-20-19	1 yr.	.....	481	.....	.....
Loveland, Joseph A.	New Gretna	35	200 ft.	3 00	8-20-19	1 yr.	10 Sec. B	.....	.....	.....
Loveland, William R.	New Gretna	54	200 ft.	3 00	8-20-19	1 yr.	19 Sec. R	.....	.....	.....
Loveland, Jesse A.	New Gretna	55	200 ft.	3 00	8-20-19	1 yr.	9 Sec. R	.....	.....	.....
Leeds, Absolom	Oceanville	61	4.85	4 50	8-20-19	1 yr.	.....	.....	628-629	.....
Leeds, Edward	Oceanville	93	1.62	1 75	8-20-19	1 yr.	.....	.....	579	.....
Leeds, William K.	Port Republic	148	2.50	2 50	8-20-19	1 yr.	238	.....	.....	.....
Long, Edward	Absecon	165	4	4 00	8-20-19	1 yr.	.....	.....	512-594	.....
Mathews, D. L.	Absecon	13	4.43	4 50	8-20-19	1 yr.	.....	.....	548-545-555-578	.....
Mitchell, William	Absecon	161	2.80	3 00	8-20-19	1 yr.	.....	.....	.....	729-781
Mathis, Jos., Sr., & Jr.	New Gretna	84	200 ft.	3 00	8-20-18	1 yr.	4 Sec. R	.....	.....	.....
Mathis, Alvin	New Gretna	159	1.50	1 50	8-20-18	1 yr.	205	.....	.....	.....
Mathis, Lois H.	New Gretna	81	3.50	3 50	8-20-18	1 yr.	216	.....	.....	.....
Mathis, Pitman	Atlantic City	58	1.11	1 25	8-20-18	1 yr.	207	.....	.....	.....
Mapel, Newton	Atlantic City	145	5	10 00	8-20-18	1 yr.	22 Sec. E	.....	.....	.....
Massey, William E.	Ocean City	95	300	600 00	8-20-18	1 yr.	200 Sec. E	.....	.....	.....
Nickles, Leon	Scullyville	6	5.65	5 75	8-20-18	1 yr.	160 Sec. F	.....	.....	.....
Nelson, Isaac	Absecon	19	.75	1 00	8-20-18	1 yr.	.....	.....	596	.....
Nelson, Alex. H.	Atlantic City	41	5	10 00	8-20-18	1 yr.	27 Sec. E	.....	.....	.....
Powers, E. M.	Linwood	48	3.50	3 50	8-20-18	1 yr.	.....	.....	.....	771
Parker, J. W.	Tuckerton	79	400 ft.	12 00	8-20-18	1 yr.	55 Sec. R	.....	.....	.....
Price, John C.	Atlantic City	82	3	3 00	8-20-18	1 yr.	.....	424-452	.....	.....
Robbins, L. D.	New Gretna	28-91	300 ft.	6 75	8-20-18	1 yr.	201	17 Sec. R	.....	.....

OYSTER BED LEASES
DEPARTMENT OF THE ATLANTIC COAST
DIVISION OF ATLANTIC COUNTY—Continued

LESSEE	ADDRESS	Ground No.	Acres	Amount of Lease	Date	E to F	SECTION NUMBER			
							Sec. A	Sec. B	Sec. C	Sec. D
Robbins, Chas. & L. D.	New Gretna	29	9.54	\$9 75	8-20-18	1 yr.	281	.....	.....	.....
Robbins, Chas. & Geo.	New Gretna	33	300 ft.	4 50	8-20-18	1 yr.	7 Sec. R	.....	.....	.....
Robbins, Clarence	New Gretna	73	7	7 00	8-20-18	1 yr.	257	.....	.....	.....
Risley, Hernan & Curtis	Pleasantville	83	10.12	10 25	8-20-18	1 yr.	.....	.....	.....	742-744-746-701
Risley, Curtis	Pleasantville	84	6.50	14 00	8-20-18	1 yr.	4-5 Sec. E	.....	.....	.....
Risley, Obediah	Pleasantville	153	3.06	3 25	8-20-18	1 yr.	.....	.....	.....	711
Risley, Ephraim	Pleasantville	187	3.00	3 00	8-20-18	1 yr.	.....	.....	.....	717
Rosenholm	Tuckerton	154	100 ft.	2 00	8-20-18	1 yr.	42 Sec. R	.....	.....	.....
Smith, Aaron & David	Scullyville	3	6	12 00	8-20-18	1 yr.	121-122 Sec. E	.....	.....	.....
Smith, John & Theodore	Scullyville	4	5	10 00	8-20-18	1 yr.	118 Sec. E	.....	.....	.....
Somers, Jackson	Scullyville	9	2.64	2 75	8-20-18	1 yr.	162 Sec. F	.....	.....	.....
Somers, Bolce	Scullyville	68	3.75	7 50	8-20-18	1 yr.	104 Sec. E	.....	.....	.....
Steelman, Enos	Scullyville	71	2	4 00	8-20-18	1 yr.	44 Sec. E	.....	.....	.....
Sampson, Emily	Scullyville	72	2	4 00	8-20-18	1 yr.	108 Sec. E	.....	.....	.....
Smith, John H.	Scullyville	127-128	16½	23 00	8-20-18	1 yr.	45-62 155 Sec. F	.....	.....	.....
Smith, Aaron R.	Scullyville	129-130	13½	17 00	8-20-18	1 yr.	Sec. E 42 Sec. E 156 Sec. F	.....	.....	.....
Somers, Leon	Linwood	10	5.98	6 00	8-20-18	1 yr.	.....	.....	.....	769-773
Scull, John B.	Linwood	11	2.05	2 25	8-20-18	1 yr.	.....	.....	.....	776-780
Somers, Emily	Linwood	40	8	8 00	8-20-18	1 yr.	.....	.....	.....	760-763
Somers, Richard J.	Linwood	102-103	15.84	20 00	8-20-18	1 yr.	.....	.....	.....	756-765-767-770-772
Sutton, Daniel	Linwood	172	2.50	2 50	8-20-18	1 yr.	.....	.....	.....	761
Somers, Ezekell	Oceanville	17	4.50	4 50	8-20-18	1 yr.	.....	.....	535-574-626	.....
Somers, C. Bodine	Oceanville	18	4	4 00	8-20-18	1 yr.	.....	.....	551-571-572-573	.....
Somers, Fred	Oceanville	152	2.86	3 00	8-20-18	1 yr.	.....	.....	565	.....
Somers, Mark	Oceanville	157	1	1 00	8-20-18	1 yr.	.....	.....	575	.....
Somers, Harry C.	Oceanville	167	.91	1 00	8-20-18	1 yr.	.....	.....	576	.....
Sooy, Leonard	New Gretna	86	1	1 00	8-20-18	1 yr.	200	.....	.....	.....

OYSTER BED LEASES
DEPARTMENT OF THE ATLANTIC COAST
DIVISION OF ATLANTIC COUNTY—Continued

LESSEE	ADDRESS	Ground No.	Acreage	Amount of Lease	Date	Term	SECTION NUMBER			
							Sec. A	Sec. B	Sec. C	Sec. D
Smith, J. Frank	Atlantic City	37	4.39	\$4 50	6-20-18	1 yr.	.....	433-439-440	.....	.....
Sears, Norris	Atlantic City	178	1	1 00	6-20-18	1 yr.	.....	405	.....	.....
Sooy, Elphra	Pleasantville	46	8	8 00	6-20-18	1 yr.	.....	.....	.....	700-735
Smith, John E.	Pleasantville	89	.83	1 00	6-20-18	1 yr.	.....	.....	569	.....
Scull, Thomas	Leeds Point	58	4 30	4 50	6-20-18	1 yr.	240	.....	.....	.....
Scott, Julia	Leeds Point	86	10	10 00	6-20-18	1 yr.	221	.....	.....	.....
Speck, Harold	Tuckerton	78	100 ft.	4 00	5-20-18	1 yr.	56 Sec. R	.....	.....	.....
Smith, William B.	Absecon	142	5	10 00	5-20-18	1 yr.	26 Sec. E	.....	.....	.....
Thomas, Jesse	Scullville	8	6	6 00	5-20-18	1 yr.	169-170 Sec. F	.....	.....	.....
Tallman, Eugene	Scullville	98-99	10-74	16 25	5-20-18	1 yr.	6-7 Sec. E	151 Sec. F	.....	.....
Weber, Edward A.	Atlantic City	108	400 ft.	5 00	5-20-18	1 yr.	11-12 Sec. R	.....	.....	.....
Willits, Fred W.	Atlantic City	144	5	10 00	5-20-18	1 yr.	23 Sec. E	.....	.....	.....
Wilson, Lillian R.	Atlantic City	143	5	10 00	5-20-18	1 yr.	21 Sec. E	.....	.....	.....
Wilson, Benjamin	Port Republic	173	2	2 00	5-20-18	1 yr.	225	.....	.....	.....

Document No. 53

ANNUAL REPORT
OF THE
Board of
Commissioners of Pilotage
OF THE
STATE OF NEW JERSEY

For the Year Ending October 31st, 1918

ANNUAL REPORT

OF THE

BOARD OF COMMISSIONERS

OF PILOTAGE

OF THE

STATE OF NEW JERSEY

For Year Ending October 31, 1918.

Members of the Board of Commissioners of Pilotage of New Jersey.

October 31st, 1918.

<i>Names.</i>	<i>Residence.</i>
BENJAMIN VAN NOTE, <i>President</i>	Lakewood, N. J.
JOHN J. SCULLY, <i>Secretary</i>	South Amboy, N. J.
JOHN PREDMORE	Barnegat, N. J.
WILLIAM A. MAHER.....	Hoboken, N. J.
JOHN D. TOPPIN.....	Newark, N. J.
S. D. HAILEY.....	Mauricetown, N. J.

Annual Report

*To His Excellency, Walter E. Edge, Governor, and to the
Legislature of the State of New Jersey.*

GENTLEMEN:—

The New Jersey Board of Commissioners of Pilotage respectfully present herewith its annual report for the year ending October 31st, 1918.

The following pilots, having passed the age of sixty years, appeared before the Board and made formal applications for an extension of their licenses: Wilmer Shields on November 8th; Stephen H. Cooper and John W. Ashcraft on March 14th, and W. A. Lewis was before the Board on May 9th for a re-examination and extension. After each one had successfully passed necessary examinations as to color, sight and hearing extensions were recommended and subsequently granted.

Deputies John L. Hall and Frank D. Wall appeared before the Board seeking an increase in their licenses. Having satisfied the Board as to their ability and fitness, the following increases were granted: John L. Hall was endorsed for Full Branch license and Frank D. Wall was granted an increase from twenty-four to twenty-eight feet draft.

Upon recommendation from Executive Committee of Pilots' Association the following apprentice was named: Richard Bigley, Jr.; date of entrance, March 8th, 1918.

Once again the Board finds extreme pleasure in calling attention of Your Excellency and the Gentlemen of the Legislature to the excellent work and high standard of efficiency maintained by the pilot service. In all the haste and congested traffic incident to the demands created by war, we all should feel proud of the record established by the Pilots' Association—"Not a serious accident in piloting over 2,300 vessels in and 2,348 vessels out of New York and New Jersey harbors."

In order that some knowledge may be gained of the varied duties of the pilots, outside of their regular duties of piloting vessels safely, a brief record, as taken from the log books of the Pilot Boats "New York," the "Sandy Hook" and the "Trenton" is herewith given:

- Dec. 3, 1917. S. S. Artemis ashore. P. B. "New York" pulled on her for 40 minutes without result.
- Dec. 22, 1917. Ordered S. S. Cubadist off to Halifax. Had no stores, so put some aboard. P. B. "Sandy Hook".
- Jan. 12, 1918. Put some stores aboard outer guard ship "Mohigan". P. B. "New York".
- Jan. 16, 1918. Towed in disabled S. S. Asturienne. P. B. "New York".
- Jan. 21, 1918. Bark "Mannie Swan" reported offshore with crew disabled with fever. Went offshore to tow in, but found bark in tow. P. B. "New York".
- Jan. 25, 1918. Put stores on board Bark "Drumeltan". P. B. "Sandy Hook".
- Jan. 30, 1918. Put stores on board Bark "Comliebank". P. B. "Sandy Hook".
- Feb. 3, 1918. Towed Schooner "Percival S. Parks" from Buoy A, Main Ship Channel, to Quarantine. P. B. "New York".
- Feb. 13, 1918. Put stores aboard Schooner "F. W. Thurlow". P. B. "New York".
- Mar. 15, 1918. Assisted tug "Resolute" to tow in S. S. "Susquehanna". P. B. "New York".
- Mar. 17, 1918. S. S. "F. Q. Barstow" aground off Robins Reef. One hawser parted. - Took another and pulled her few lengths, but still aground. P. B. "New York".
- Mar. 24, 1918. Put stores aboard S. S. "Santa Clara". P. B. "Sandy Hook".
- May 14, 1918. Pulled on S. S. "A. C. Bedford" without success. Ashore off B. & O. Docks, St. George. P. B. "New York".
- June 26, 1918. American hydroplane No. A942 disabled. Towed in and turned over to U. S. S. "Cayuga".
- About June 10 to 15, 1918. Picked up a boat containing 13 men below the Narrows and towed back to U. S. S. "Adams," to which boat belonged. P. B. "Trenton".
- May 22, 1918. Saved three men from a launch which sank just as we arrived. P. B. "Trenton".
- July 16, 1918. Put stores aboard Schooner "Salisbury". P. B. "Sandy Hook".
- Aug. 24, 1918. About two miles S. S. E. of Whistling Buoy took in tow tug "J. E. Meyers," with rudder gone. Towed in and turned over to U. S. S. "Ranger," S. P. 237. P. B. "New York".
- Aug. 30, 1918. Picked up aeroplane No. 3476, disabled. Took on board aviators Lieutenant Jasseux and Lieutenant Murphy. Plane came from Mitchell Field, Hempstead, L. I., and fell 2,500

- feet. Put aviators aboard S. P. No. 666. Turned aeroplane over to same. P. B. "Sandy Hook".
- Sept. 1, 1918. Stood by hydroplane No. 21, disabled, until one of the U. S. guard boats took her in tow. P. B. "Trenton".
- Sept. 1, 1918. Took sick soldier out of transport and landed same at Quarantine. P. B. "New York".
- Sept. 20, 1918. Put stores aboard S. S. "Herm". P. B. "New York".
- Oct. 5, 1918. Bark "Alice A. Leigh" ashore to the westward of South Channel. Pulled her off bottom. P. B. "New York".
- Sept. 11, 1918. Offered assistance to S. S. "Esperanza," disabled steering gear. None required. P. B. "New York".

And from the instances set down above it can be seen that the Pilots have been constantly alert and rendered immeasurable assistance outside of their regular hazardous duties.

The Board has endeavored in their humble way to render every assistance and aid possible to the Naval Commander of this district, and have been ready at all times to volunteer their service and experience in marine matters to all who might seek their counsel.

The usual annual tables are herewith appended.

Very respectfully submitted,

By order of the Board

BENJAMIN VAN NOTE,

President.

JOHN J. SCULLY,

Secretary.

Dated Perth Amboy, N. J., Nov. 21st, 1918.

Kind and Number of Vessels Piloted

November 1st, 1917, to October 31st, 1918.

INWARD.

	<i>Steamships.</i>	<i>Ships.</i>	<i>Barks.</i>	<i>Schrs.</i>	<i>Total.</i>
November, 1917	156	2	1	1	160
December, 1917	173	1	3	2	179
January, 1918	141	1	6	5	153
February, 1918	153	3	5	2	163
March, 1918	175	4	3	3	185
April, 1918	198	4	8	8	218
May, 1918	203	2	5	7	217
June, 1918	186	....	4	10	200
July, 1918	195	1	7	11	214
August, 1918	220	....	2	5	227
September, 1918	216	2	2	8	228
October, 1918	216	....	7	4	227
Total	2,232	20	53	66	2,371

OUTWARD.

	<i>Steamships.</i>	<i>Ships.</i>	<i>Barks.</i>	<i>Schrs.</i>	<i>Total.</i>
November, 1917	156	....	2	9	167
December, 1917	151	....	1	4	156
January, 1918	167	1	1	6	175
February, 1918	157	1	4	6	168
March, 1918	180	3	4	5	192
April, 1918	208	2	4	4	218
May, 1918	200	3	7	5	215
June, 1918	190	3	11	1	205
July, 1918	197	6	5	3	211
August, 1918	213	2	6	4	225
September, 1918	211	....	1	5	217
October, 1918	194	....	2	3	199
Total	2,224	21	48	55	2,348

Statement of Earnings

November 1st, 1917, to October 31st, 1918.

November, 1917\$ 26,478.14

December, 1917	27,559.34
January, 1918	28,992.00
February, 1918	26,948.53
March, 1918	32,415.72
April, 1918	36,386.76
May, 1918	35,457.66
June, 1918	33,428.22
July, 1918	35,630.64
August, 1918	38,553.49
September, 1918	37,057.19
October, 1918	36,554.08
Total	\$395,461.77

Active Members

FULL BRANCH.

Ackerman, John W.	Devereaux, Charles B.	
Ashcraft, John A.	Devereaux, William S.	Mitchell, William A.
Beebe, Allen M.	Earle, Walter O.	Nichols, E. P.
Beebe, Alonzo M.	Egan, Frank T.	Oldmixon, George
Beebe, Charles O.	Hall, John L.	Oldmixon, Leon E.
Beebe, Howard E.	Hall, John R.	Petersen, John
Beggs, Samuel C.	Hall, Warren A.	Shields, Wilmer
Bigley, Richard	Hopkins, John F.	Sloat, Ernest H.
Carr, Marcus A.	Hurrell, William J.	Wall, Nikolai A.
Clarke, Henry M.	Lewis, William	Warner, Charles E.
Cooper, Stephen H.	Lowe, William A.	Wells, Joseph T.
Crocker, William	McCarthy, James E.	Winters, Phillip E.
Crocker, Wilmer J.	McCarthy, John F.	Wood, Joseph T.

DEPUTY.

Wall, Frank D. (28 ft.)

RETIRED.

Behrens, Richard Burrett, Thomas F. Treat, Hiram Wood, 'Nathan

DEATHS

November 1st, 1917, to October 31st, 1918.
Lennan, William B. (Died October 3rd, 1918.)

Document No. 54

R E P O R T
OF
BOARD OF COMMERCE
AND NAVIGATION

From November 1st, 1917, and Ending June 30th, 1918

STATE OF NEW JERSEY

Board of Commerce and Navigation

ANNUAL REPORT FOR THE FISCAL PERIOD BEGINNING

NOVEMBER, 1, 1917

AND ENDING

JUNE, 30, 1918

OFFICERS

J. SPENCER SMITH, *President*

RICHARD C. JENKINSON, *Vice-President*

W. PARKER RUNYON

JOHN M. WARD

WILLIAM L. SAUNDERS

WILLIAM T. KIRK

ALLEN K. WHITE

ROBERT F. ENGLE

VICTOR GELINEAU, *Acting Director* (From May 20, 1918)

B. F. CRESSON, JR., *Consulting Engineer*

HENRY J. SHERMAN, *Engineer, Inland Waterways*

Annual Report

GENERAL WORK OF THE BOARD.

This Report covers the operations of the Board for the eight months ending June 30th, 1918; the beginning of the fiscal year for the State having been changed from November 1st to July 1st. For fair comparison with Reports of other years the results shown in this Report should therefore be increased fifty per cent. (50%).

One highly important departure was made from the practice of other years. The Board with the hearty accord and encouragement of the Governor has carried successfully into operation the policy of making long term leases of lands flowed by tide water, instead of the former grants and short term convertible leases. These leases are for a sixty (60) year period and provide for revaluations by the Board at the end of twenty, thirty, forty and fifty years, in each case, and for reversion to the State of the lands leased, with appurtenances and improvements at the end of sixty years. A form of this lease is given in the appendix "C." The grants and convertible leases shown in this Report had been under consideration since prior to the change in policy, or were made to railroad companies for bridge crossings under the General Railroad Act, as interpreted by the Attorney General. During this eight months twenty-four (24) grants amounting to \$132,496.16, two (2) convertible leases amounting to \$6,097.20, two (2) conversions amounting to \$7,612.21, fifteen (15) non-convertible leases amounting to \$51,133.38 and twenty-eight (28) revocable licenses amounting to \$395.00 were made, aggregating \$197,733.95.

APPOINTMENT OF COMMISSIONERS.

Under the law the terms of Vice-President Richard C. Jenkinson and Commissioner William L. Saunders terminated on June 30th, 1918. These members of the Board were both reappointed for the term of four years, becoming effective July 1st, 1918.

At the meeting of July 15th, 1918, J. Spencer Smith was re-elected

President of the Board and Richard C. Jenkinson was re-elected Vice-President—in each case by unanimous vote.

BOARD MEETINGS.

Regular meetings of the Board have been held on the following dates: November 19th, 1917; December 17th, 1917; January 21st, February 18th, March 18th, April 29th, May 20th, June 17th. The Board also held a special meeting on December 4th, 1917.

The Board has continued the practice of holding an executive meeting at 11 o'clock in the morning of the day of the regular meeting and a public meeting at 1:30 in the afternoon. The terms of the Board were usually fixed at these meetings and communicated verbally to the applicant if present at the meeting, and in writing shortly after the meeting by the Secretary. If the case presented unusual features a special committee of the Board was appointed to make additional studies for report to the Board at the following meeting.

PERMITS ISSUED FOR WATER FRONT IMPROVEMENTS.

The law under which this Board operates requires that any improvement on tide waters within the boundaries of the State to be authorized must be covered by permit from this Board. During this past eight months the Board has issued fifty-two (52) permits for construction, dredging, laying of cables, pipes, etc.

This law has been instrumental in the presentation of applications for riparian rights. In addition the Board exercises control over construction that might be prejudicial to the interests of navigation and of shore owners.

INVESTIGATION OF ILLEGAL OCCUPATION OF STATE LANDS UNDER WATER.

A complete summary of the systematic investigation inaugurated by this Board to discover illegal holding of the State's lands under tide water is given in last year's report.

Fourteen (14) of these cases have been settled in these eight months by lease or grant with a return to the State of \$17,794.86, and thirty (30) by revocable licenses at an annual return to the State of \$210.00.

Considerable progress has been made in the consideration of several very important cases in which the applicants claim that the payment required by the Board should make allowances for compliance with the old common law, or freeholders' licenses. From these cases the return will undoubtedly be very large. From prices fixed by the Board in the particular case or in the schedule of rates the value of these cases applied for, but still under consideration, aggregates \$109,000.

The provision by the Legislature appropriating \$5,000 for the service of Special Counsel for the Board is confidently expected to expedite the conclusion of many of the occupations.

MAPS OF RIPARIAN LANDS AND CONVEYANCES.

The compilation of atlas maps showing the conveyances of lands under water made by the State has been continued. Nine (9) sheets have been made during this period, and the sheets previously made have been kept up to date to show changes in waterfront construction and new conveyances. These maps have proved to be of great value.

The maps of the waterfront giving general schedules of prices charged for riparian conveyances have been continued in use.

The entire collection of maps obtained from the inception of the Riparian Commission has been re-catalogued and filed in fireproof steel filing cases. Three large safe cabinets of first class fireproof quality have been obtained to hold the other records of the Board.

Maps have been drawn to accompany each grant or lease of riparian lands.

FORECLOSURE OF LAPSED LEASES.

Chapter 83 of the Laws of 1906 requires the State Treasurer to report to this Board on the first of January of each year riparian leases of lands under water on which rentals are in arrears for more than one year, and provides that the Board shall endeavor to collect these rentals, and, in the event of failure, foreclose the lease and recapture the land for the State.

Under this statute only one lease was foreclosed, and thereby the

lands became again the property of the State, the foreclosure being effected March 4th, 1918:

Lease to John P. Casler, dated August 3rd, 1893.

NEW JERSEY SHIP CANAL PROJECT.

Legislation has been enacted appropriating \$1,000,000 for the acquisition by the State of the necessary right of way for the ship canal, to be available when the Federal Government undertakes construction of the canal, and providing for the cession of lands within the right of way by the State to the Federal Government.

DEPARTMENT OF POWER VESSELS.

As a result of a competitive examination by the Civil Service Commission, William S. Hawley, of Paterson, N. J., has been appointed Inspector.

An additional Act was passed at the 1918 session of the Legislature which will conduce to greater efficiency in the work of the Department. This is Chapter 124 of the Laws of 1918, approved February 25, 1918.

COAST PROTECTION.

The Board feels that it is high time some action was taken by the State looking toward the protection of the coast against erosion. It is true there have been no great storms in recent years to inflict such damage as was caused in the Winter of 1914-1915, when Sea Bright was threatened with annihilation.

The State should not wait for another demonstration of this sort, but it should proceed to study the changes which have been occurring for the last few years on the coast; to study the effect of the various forms of beach protection that have been erected, and to devise a general plan whereby some form of related protection can take the place of the haphazard bulkheads and jetties that have been built in the past.

As the late Dr. Elmer L. Corthell, past president of the American Society of Civil Engineers, and one of the great authorities on Sandy

Sea Coast Shore Protection, has said, "Between land and sea an endless battle is being waged. Night and day the waves are continuing their assault upon the shore, and for centuries past engineers have been struggling against the powerful invader."

One of the great assets of the State is its 128 miles of coast line now devoted largely to health and recreation centers for people of the Eastern States.

The protection and preservation of the beaches are not local problems—they are problems in which the whole State is interested, and the Board is of the opinion that some proper authority within the State be directed to make a study and devise a proper plan, and that this should be done promptly.

INLAND WATERWAY DIVISION.

During the great storm of April, Turtle Gut Inlet, Cape May County, reopened, thus restoring the cross current at Swain's Channel. A month later complaint was made to the Board that serious shoaling had taken place at this point, greatly interfering with the operation of the commercial fishing fleet located at Wildwood. The Board ordered an inspection, and found that the channel had filled at several points. During the inspection it was learned that the State Highway Commission contemplated building a trestle bridge across the inlet. Thereupon immediately steps were taken to inform the Highway Commission of the expense and difficulty in maintaining the Inland Waterway should the Inlet be allowed to remain open. On June 6th the Highway Commission held a hearing on the subject, which was attended by Cape May County officials, large property owners and representatives of the Board of Commerce and Navigation. All were strongly in favor of making a solid fill instead of a bridge, arguing that this would be cheaper, more economical and would best subserve all the interests of the State. Owing to the engineering problems involved, the Commission decided to refer the matter to the Engineers of the Highway Commission and Board of Commerce and Navigation and the Cape May County Engineer. A conference of these engineers was held at the office of the Highway Commission Saturday, July 3rd,* at which there was a full discussion of the probable effect of closing the Inlet, both on the highway and the channel of the Inland Waterway. The State Highway Engineer agreed that the mainte-

* Included to show completion of endeavor to secure cooperation of State Highway Commission.

nance of the Inland Waterway was of paramount importance, that the closing would eliminate certain unfavorable tidal currents, and agreed to approve the plan for the solid fill, thus closing the Inlet entirely. The Board at the July meeting expressed its appreciation of the hearty cooperation of the Highway Commission, and directed that a resolution of thanks be forwarded to them.

INLAND WATERWAY MAINTENANCE.

Early in March the attention of the Board was called to the shoaling of the channel across Absecon Bar. A survey was ordered to be followed by the necessary specifications and contract for the dredging. The survey showed a total of 16,182 cubic yards to be removed. The sum of \$5,000 was included in the Appropriation Bill to cover work of this character, and the Board directed that it be used for this job. Permission was obtained from the State House Commission to let the contract without advertising. Accordingly, plans and specifications were sent to several contractors and bids received from the Hill Dredging Company at forty cents per cubic yard and Gibb & Stephenson Bros., Inc., at thirty-nine cents per cubic yard. The award was made to the latter company, and the work completed early in the Summer. Although the appropriation became exhausted before the channel was completed, the contractor generously agreed to finish the job without additional payment, for which proper acknowledgment is here made.

Surveys of shoaled areas were made in Ludlam's Bay and Swain's Channel. In Ludlam's Bay the channel has filled for a depth of two to four feet over a length of 1,700 feet. The material is soft mud, which can be removed at low cost. In June, when the survey of Swain's Channel was made, it was found the shoaled area was 1,500 feet long, and required the removal of 9,624 cubic yards to restore the channel.

CHANNEL MARKING.

Work of marking the channel of the Inland Waterway was begun May 6th and completed June 24th, following the same system as last year. The ranges between Atlantic City and Great Bay were renewed during the past season.

Some complaints were made against fishermen leaving submerged stakes in Upper Barnegat Bay. An investigation proved the complaints well founded. This was followed by a request to the parties who had set them to remove the same, which was done promptly.

BAY HEAD-MANASQUAN CANAL.

Under the contract of Louis B. Harrison, awarded last year, work was begun late in September, and is still under way. Up to July 1st he had excavated 93,792 cubic yards at a cost of \$33,765.12. The whole contract amounts to about \$50,000, and should be completed within three months. When it is done 30% of the entire excavation will have been made.

Bids were received on May 14th for dredging the third section of the canal, for which \$25,000 was available. These were as follows:

<i>Name of Bidder</i>	<i>Address</i>	<i>Price</i>
Hill Dredging Co.....	Atlantic City, N. J.	48c cu. yd.
Harrison & Hall.....	New York City, N. Y.	39c cu. yd.
Matthews Bros.	Red Bank, N. J.	32.7c cu. yd.

At the May meeting the Board directed that the contract be awarded to the lowest bidder, Matthews Bros. This contract will be started as soon as the Harrison contract is completed. The canal will then be nearly 40% excavated, the completed length 63% of the whole.

During the great northeast storm in April the Manasquan River rose to an elevation of 107.2, normal low water being 101.4, a difference of 5.8 feet. It rose gradually till 2 A. M. April 10th, when the water stood at 103.4. From this time to 7 A. M., or five hours, it rose to 106.6 feet. It continued about this height, receding a few tenths at each tide, until 6 P. M. April 11th, when it started to rise still further, reaching an elevation of 107.1 at 12 o'clock midnight. The river then began to fall, dropping to 106 in the next twenty-four hours, then rapidly to normal.

On April 10th when the river rose suddenly the water in the Bay fell rapidly, the maximum difference being reached 9 P. M. on that date and amounting to 9.4 feet. For more than 36 hours there was a difference in level of about nine feet. This is sufficient to cause serious erosion of the banks unless the current is checked by a tidal gate. As such storms occur only at long intervals, it would

probably be cheaper to dredge the channel than to build, maintain and operate a tidal gate.

NEW JERSEY SHIP CANAL.

On September 1st, 1917, \$5,000 became available for continuing the property surveys along the route of the Ship Canal. Between Bordentown and a point two miles east of Jamesburg the property lines were surveyed several years ago. A field party was organized December 1st, 1917, and started near Jamesburg at the end of the former work, proceeding eastward to Morgan, the terminus. The Board surveyed and monumented the centre line from Jamesburg to Morgan in 1916. Using this as a base, the side lines 500 feet each side of the centre line were surveyed and the intersection of all property and road lines therewith determined. Also all boundary lines were surveyed within the 1,000-foot strip. The closure and area of each parcel were computed and then plotted on sectional sheets. With the completion of this survey the State has now done all the preliminary work necessary until the Federal Government takes steps toward the actual construction.

APPENDIX "A."

Conveniences by Board of Commerce and Navigation from November 1, 1917 to June 30, 1918.

GRANTS.

Date.	Locality.	County.	Amount.
June 19, 1916.....	Liberty Thorofare	Ocean	\$ 1,607.36
July 16, 1916.....	Hackensack River	Hudson	23,080.00
Aug. 20, 1917.....	Hackensack River	Hudson	36,000.00
Aug. 20, 1917.....	Hackensack River	Hudson	3,000.00
Sept. 17, 1917.....	Liberty Thorofare	Ocean	491.00
Oct. 15, 1917.....	Clay Pit Creek	Monmouth	73.60
Nov. 19, 1917.....	Shark River	Monmouth	754.72
Dec. 17, 1917.....	Delaware River	Camden	14,310.00
Dec. 17, 1917.....	Hackensack River	Bergen	2,000.00
Jan. 21, 1918.....	Hackensack River	Hudson	24,250.00
Jan. 21, 1918.....	Hackensack River	Hudson	4,380.00
Feb. 18, 1918.....	Old Pompsess Creek.	Burlington	250.00
Feb. 18, 1918.....	Executrices, etc., of		
Arabella H. Price, deceased	Old Pompsess Creek.	Burlington	250.00
Feb. 18, 1918.....	The City of Camden	Camden	6,640.00
Mar. 18, 1918.....	Electric Boat Company	Hudson	3,750.00
Mar. 18, 1918.....	Newark Bay	Gloucester	338.00
April 29, 1918.....		Passaic	4,068.48
April 29, 1918.....		Ocean	80.00
April 29, 1918.....			482.00
April 29, 1918.....			231.00
April 29, 1918.....			157.00
April 29, 1918.....	Little Elder Creek.		157.00
April 29, 1918.....	Little Timber Creek	Camden	260.00
June 17, 1918.....	Delaware River	Camden	5,886.00
	Total		\$132,496.16

FIFTEEN-YEAR LEASES.

Date.	To Whom Made.	Locality.	County.	Annual Rental.	Convertible Within Five Years at
Oct. 15, 1917.....	James H. Rhodes & Co.	Hackensack River	Hudson	\$421.55	\$ 6,022.20
Nov. 19, 1917.....	Hattie Berry Ayars	Clay Pit Creek	Monmouth	5.25	75.00
	Total				\$ 6,097.20

BOARD OF COMMERCE AND NAVIGATION

CONVERSIONS.

<i>Date</i>	<i>To Whom Made.</i>	<i>Locality.</i>	<i>County.</i>	<i>Amount.</i>
Jan. 21, 1918.	Newark Factory Sites, Inc. (conversion of part of lease to Newark Meadows Improvement Company, dated May 1917)	River	Hudson	\$ 6,926.50
May 20, 1918.		River	Burlington	685.71
		Total		\$ 7,612.21

TWENTY-FIVE YEAR LEASE

<i>Date</i>	<i>To Whom Made.</i>	<i>Locality.</i>	<i>County.</i>	<i>Annual Rental.</i>	<i>Capital Sum.</i>
Jan. 21, 1918	Miner-Edgar Company.	Passaic River	Essex	\$1,627.50	\$ 23,250.00
	The above lease is not convertible.				

SIXTY-YEAR LEASES.

<i>Date</i>	<i>To Whom Made.</i>	<i>Locality.</i>	<i>County.</i>	<i>Annual First Twenty Years.</i>	<i>Capital Sum.</i>
Feb. 18, 1918.	Federal Terra Cotta Company	Woodbridge Creek	Middlesex	\$ 73.71	\$ 1,053.00
Feb. 18, 1918.	James Morgan, Jr., Patrick J. Handbury and Mary J. Skelton	Delaware River	Camden	91.00	1,300.00
Feb. 18, 1918.		Elizabeth River	Union	23.36	333.65
Feb. 18, 1918.		Clay Pit Creek	Monmouth	3.50	78.50
Feb. 18, 1918.		Woodbridge Creek	Middlesex	42.63	609.00
Feb. 18, 1918.		Alloway Creek	Salem	11.24	160.50
Feb. 18, 1918.		Passaic River	Essex	700.00	10,000.00
Feb. 18, 1918.		Elizabeth River	Union	18.06	258.00
Feb. 18, 1918.	Estate of Moro Phil.	Cooper River	Camden	564.73	8,067.60
Feb. 18, 1918.		Elizabeth River	Union	104.92	1,498.83
Mar. 18, 1918.		Passaic River	Passaic	12.18	174.10
Mar. 18, 1918.		Passaic River	Passaic	126.00	1,800.00
April 29, 1918.		Overpeck Creek	Bergen	3.51	50.20
May 20, 1918.		How and Thorofare Channel	Cape May and Atlantic	175.00	2,500.00
		Total			\$ 27,863.38

LICENSES.

<i>Date.</i>	<i>To Whom Made.</i>	<i>Locality.</i>	<i>County.</i>	<i>Amount.</i>
Nov. 8, 1917	Public Service Electric Company (revocable)	Elizabeth River	Union	\$ 25.00

Nov. 9, 1917	Parental School of Hudson County, N. J. (annual; revocable)	Newark Bay	Hudson	5.00
Nov. 14, 1917	William deF. Greenawalt (annual; revocable)	North Shrewsbury River	Monmouth	5.00
Dec. 3, 1917	Benjamin W. J. Fox (annual; revocable)	North Shrewsbury River	Monmouth	5.00
Dec. 18, 1917	New Y		Middlesex	25.00
Dec. 18, 1917	New Y		Hudson	25.00
Dec. 18, 1917	New Y		Essex & Hudson	25.00
Dec. 21, 1917	Amend		Burlington	5.00
Jan. 8, 1918	Henry		Bergen	5.00
Jan. 8, 1918	Henry		Bergen	5.00
Jan. 8, 1918	Henry		Bergen	5.00
Jan. 8, 1918	Henry		Bergen	5.00
Jan. 8, 1918	Henry		Bergen	5.00
Jan. 8, 1918	Henry		Bergen	5.00
Jan. 8, 1918	Henry		Bergen	5.00
Jan. 8, 1918	Henry		Bergen	5.00
Jan. 8, 1918	Henry		Bergen	5.00
Jan. 8, 1918	Henry		Bergen	5.00
Jan. 8, 1918	Henry		Bergen	5.00
Jan. 8, 1918	Henry		Bergen	5.00
Jan. 8, 1918	Henry		Bergen	5.00
Mar. 8, 1918	The De		Bergen	5.00
Mar. 30, 1918	pany		Camden	25.00
April 2, 1918	Public		Passaic & Bergen	10.00
May 28, 1918	Public		Middlesex	20.00
May 28, 1918	Aeroma			
May 31, 1918	revoc			
May 31, 1918	Harry		Monmouth	50.00
May 31, 1918	Harry		Gloucester	5.00
May 31, 1918	Emma			5.00
May 31, 1918	William			5.00
June 10, 1918	New Y			
	until		Camden	100.00
			Total	\$ 395.00

APPENDIX "B."

Report of the division of the inland waterways

State of New Jersey

Report of the Division of the Inland Waterways, State of New Jersey

The number of pleasure craft on the Inland Waterways for this season has naturally been less than that of the years previous to the war. This arises mainly from the fact that a number of the larger yachts and cruisers have been put into Government use in connection with the war. Commercial traffic in general compares favorably with last year's, and has increased between Atlantic City and Beach Haven and between Wildwood and Cape May.

BRIDGES.

The severe storm of April 11, 1918, caused some damage to bridges crossing the Inland Waterways. The West Jersey and Seashore Railroad is assembling material at Sea Isle City for the purpose, as reported, of constructing a new bridge leading into Sea Isle City.

ATLANTIC CITY YACHT HARBOR.

The City of Atlantic City has completed a work of great importance to boating interests on the Waterways; it has built in Gardner's Basin eight (8) docks eighty (80) feet long and thirty-five (35) feet wide. This will form one of the very best harbors in the State.

BAY HEAD-MANASQUAN CANAL.

The engineering features of this work are set forth in the body of the report. The State has taken title to thirty-two (32) properties on the right of way; nine (9) properties are in course of settlement, and five (5) will probably require condemnation.

COMMERCIAL TRAFFIC

Cape May County

20,880 barrels of fish were shipped, valued at.....\$334,020

Atlantic County shipments included

5,700 barrels of fish, valued at.....	85,000
2,765,000 clams, valued at	30,417
24,080 bushels of oysters, valued at.....	26,484
Seed oysters and shells, valued at.....	12,500

In addition to the above sea and bay products, the following commodities were shipped over the Inland Waterways:

1,330 tons of coal, 150 tons of sand, 350 tons of stone, 3,500 bags of cement, 20 tons of machinery, 7,000 tons of garbage, \$3,700 worth of groceries and provisions, 33,000 bricks, 3,500 gallons of gasoline.

Ocean County

3,090 barrels of fish, valued at.....	\$46,350
54,815 bushels of oysters, valued at.....	60,300
4,660,000 clams, valued at	51,330

Division of Power Boat Inspection

**Report of Registrations and Licenses Issued and Paid for
November 1, 1917 to June 30, 1918**

158 Private boats registered	\$158.00
1 Original Master's License	5.00
3 Renewals of Masters' Licenses.....	9.00
20 Renewals of Masters' and Engineers' Licenses.....	60.00
1 Original Master's and Engineer's License.....	5.00
1 Original Engineer's License	5.00
1 Renewal Engineer's License	3.00
17 Vessels licensed—under ten tons	170.00
2 Vessels licensed—over ten tons.....	30.00
Total.....	<u>\$445.00</u>

Document No. 55

R E P O R T
OF
BOARD OF COMMERCE
AND NAVIGATION

From July 1st, 1918, and Ending June 30th, 1919

STATE OF NEW JERSEY

Board of Commerce and Navigation

ANNUAL REPORT FOR THE FISCAL YEAR BEGINNING

JULY 1, 1918

AND ENDING

JUNE 30, 1919

TRENTON, N. J.:
PUBLISHED BY THE STATE
—
1919

OFFICERS.

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WILLIAM L. SAUNDERS

RICHARD C. JENKINSON, *Vice-President*

WILLIAM T. KIRK

W. PARKER RUNYON

HARRY B. COOK

HENRY C. BROOKING

ALLEN K. WHITE

ROBERT F. ENGLE

VICTOR GELINEAU, *Director*

B. F. CRESSON, JR., *Consulting Engineer*

HARRISON P. LINDABURY, *Special Counsel*

HENRY J. SHERMAN, *Engineer, Inland Waterways*

Annual Report

**For the Fiscal Period Beginning July 1, 1918, and Ending
June 30, 1919.**

GENERAL WORK OF THE BOARD.

The Board of Commerce and Navigation was created by an act entitled "An Act creating a department to be known as the Board of Commerce and Navigation, and vesting therein all the powers and duties now devolved, by law, upon the Board of Riparian Commissioners, the Department of Inland Waterways, the Inspectors of Power Vessels, and the New Jersey Harbor Commission," approved April 8, 1915, P. L. 1915, p. 432. The names of the constituent bodies of which the Board was created, named in this act, indicate fairly well the powers and duties of the Board, except that the work assigned to the former New Jersey Ship Canal Commission was also included, as that Commission had been, prior to the act creating this Board, merged with the New Jersey Harbor Commission.

The amount of work, however, now disposed of by the Board is greatly in excess of that formerly handled by these original Commissions. The chief reasons for this, aside from the increase in population, and growth in industrial activities of the entire State, and particularly the water-front communities, are:

- First:* The pronounced augmentation of the country's interest in shipping and shipbuilding activities;
- Second:* The determined prosecution of a systematic campaign to secure recognition of and payment for the State's title and interest in certain of its lands under water.

The first impetus became marked early in the European war and reached its high level with the entry of the United States into that conflict. The latter influence was begun early in 1916 with an inspection of the entire shore front of the State. The notable results thereof are shown later in this report.

The demand for riparian rights has been very large. There were executed and delivered during this year—26 grants, 34 leases, 29 licenses or easements, and 4 conversions, aggregating \$476,603.03. The details are shown in the Appendix "A."

REAPPOINTMENT OF COMMISSIONERS.

Under the law the terms of Commissioners W. Parker Runyon and John M. Ward expired June 30th, 1919.

Governor Edge submitted to the Senate the name of Commissioner Runyon for reappointment, and to succeed Commissioner Ward, the name of Henry C. Broking, of Paterson. These appointments were confirmed by the Senate.

Commissioner Allen K. White resigned from the Board by reason of ill-health, and Governor Edge appointed to serve Mr. White's unexpired term Mr. Harry B. Cook, of Atlantic City.

BOARD MEETINGS.

Regular meetings of the Board have been held at Trenton on the following dates: July 15th, 1918, August 6th, 1918, September 16th, 1918, November 29th, 1918 (Jersey City); December 16th, 1918, January 20th, 1919, February 24th, 1919, March 17th, 1919, April 21st, 1919, May 19th, 1919, and June 16th, 1919.

The Board holds a regular meeting once a month at Trenton. For this a typewritten calendar is prepared two weeks ahead of the date scheduled, giving an abstract of all cases to be considered. A copy is sent each member of the Board. The Board is thus prepared to act with thoroughness and deliberation on each case brought before it.

An executive session is held in the forenoon of the day of the meeting, mainly to consider the applications for riparian rights. At this session the terms of the conveyance are tentatively fixed—the Board taking into account all facts bearing on the particular application. For this, maps and correspondence and relevant data are provided. If for any reason the case cannot properly be disposed of at that time the Board waits to hear the applicant present the case at the open meeting. Then if the Board desires still more information before fixing a price the case is laid over—a committee of the Board, or staff of the Board, being directed to make examination and report.

The applicant always has an opportunity to be heard—in fact, applicants are generally urged to appear and present their case so they may feel that their side has been given due consideration.

After the applicants have been heard the Board proceeds to consider all the cases on the calendar, when the cases are either disposed of or referred to members of the staff whose specialty most nearly accords, or to a committee of the Board. The vote of the Board in each case is recorded in the form of permanent Minutes, of which copies are kept in both the Jersey City and in the Trenton offices.

The procedure is so highly systematized that a vast amount of work is disposed of at each meeting.

PERMITS ISSUED FOR WATER FRONT IMPROVEMENTS.

Chapter 123 of the Laws of 1914 entitled "An Act to create the New Jersey Harbor Commission and to define its powers and duties," is the original act which requires approval by this Board of plans for improvement or development on the water front of this State. The acquisition of the riparian rights in some form is generally a condition precedent to the granting of authorization to place any structure upon lands under water. Plans of special importance are ordinarily referred to the Consulting Engineer of the Board for study and advice, to aid the Board in consideration of the application.

As the interval between regular meetings is ordinarily about one month situations might arise where prosecution of the proposed work would be held up pending a meeting. To provide against this contingency the Board authorizes temporary permit pending the meeting. If the conditions seem to require, the Director, upon receipt of application for construction, notifies each member of the Board thereof, giving a general description and stating that there appears no reason why temporary permit should not issue, and that such permit will issue provided no objection is filed by any member of the Board within five days. If there is no objection a temporary permit issues, authorizing the applicant to proceed at his own risk, until the regular meeting of the Board, when the matter is disposed of.

Sixty-two (62) permits issued during the current year.

Under this provision of the Law the Board is kept informed of progress in building up the shore front of the State.

STATEMENT OF INVESTIGATION OF ILLEGAL OCCUPATION OF STATE LANDS UNDER WATER.

The results attained in this field of the Board's endeavor have been more than gratifying. As a result of the prosecution of this investigation grants and leases have been delivered aggregating the sum of \$149,140.33, with back rentals and interest amounting to \$170.18 more. Revocable licenses have been delivered during the past year which bring to the State an annual rental of \$349.71. Adding to the above sum for grants and leases accruing during the past year the additional amount of \$55,850.40, the value of grants and leases which originated from this investigation, executed and delivered prior to July 1st, 1918, we have the sum of \$205,161.51. The annual fees from the small purprestures, paid for prior to July 1st, 1918, amount to \$430.00. Adding this to the \$349.71, received in this past year, we had \$779.71 from this source alone, accruing to the State annually. The amount from the individual license is small, but the aggregate annual rental—\$779.71—capitalized at seven per cent. (7%) per annum, amounts to \$11,139.00. This alone exceeds the entire cost of the investigation.

Such results warrant a description of the manner of prosecution of this investigation, even at the risk of some reiteration of what has been set forth in the reports of previous years. Owing to the belief that certain lands of the State were occupied without entire extinction of the State's title, a systematic examination of the shore front was begun in 1916. A sub-department was created in the Board's staff and the actual work was delegated to men having engineering training. The procedure was to examine all the riparian records bearing on a certain district, and to send an inspector in the field to cover that district, noting as purprestures all occupations not protected by a conveyance from the Riparian Commission or from this Board. These alleged trespasses were carefully and permanently recorded, a sketch and a description of the occupation being made a part of the record.

The next step was to address a notice to the occupant, requesting information as to the riparian rights, following up this first notice as required. Many of the occupants replied giving references to documents showing, or purporting to show, some form of authority from the State, either through the Legislature, by special act, or from the

Board of Freeholders of the County, operating under the Wharf Act of 1851. Many others either could not, or would not, furnish any data.

Whichever course of action the occupant followed the case left a great deal of work for the staff. If a document was produced purporting to protect the occupation, it was then incumbent upon the staff to search the records to identify the document with the land in question. In some cases this could be done without great difficulty; in others the descriptions were so obscure that the search consumed much time and labor. If the occupant could not or would not furnish any information the case is that much more difficult. Despite the notable progress that has been made much remains to be done in the search of records, with particular reference to Freeholders' Licenses and Legislative Acts relating to lands on some of the most valuable water front of the State.

It is fair to state that this work has been conducted without sensationalism and with full recognition of the fact that the occupant probably had some rights in the occupation. The negotiations have been conducted with all possible courtesy and co-operation with the occupant, the office giving these parties aid in searching their records, when such aid was desired. It is believed that this attitude has been appreciated by the parties interested. In short, everything possible has been done to aid the occupant in justifying the occupation consistent with securing recognition of the State's rights.

MAPS OF RIPARIAN LANDS AND CONVEYANCES.

The plan of plotting on a large scale the water front of the State to show the riparian lands and conveyances has been continued, and very good progress has been made. Thirty-two (32) sheets have been finished in this year, including three (3) of the Elizabeth River, two (2) of Newton Creek and Big Timber Creek, three (3) of the Raritan River and twenty-four (24) of Atlantic City, Ventnor City, Margate, Longport and Ocean City.

These maps are of uniform size of 30" x 41" and when possible are drawn to a scale of 100 feet to 1 inch, a smaller scale being adopted only when the extreme distance between boundary lines of riparian conveyances necessitates it. These maps are revised periodically to keep them up to date.

It would be difficult to exaggerate the value of these maps in searching the riparian records. They form the most convenient index to the record books of riparian conveyances and show at a glance whether there are any lands under water occupied without riparian rights from the State. They amount to a duplication of records in the books of the riparian conveyances and for many purposes can be substituted therefor in searching, with a great saving in time and labor. A set is kept in the Trenton and Jersey City offices and one is furnished to each Commissioner.

INLAND WATERWAY DIVISION.

The construction of the Inland Waterway from Cape May to Bay Head was inaugurated under Chapter 83 of the Laws of 1908, entitled "An Act authorizing the construction of an inland waterway, extending from Cape May to Bay Head along the Atlantic Coast, and making appropriation therefor."

The act provided for a waterway at least six feet deep at mean low water and of one hundred feet bottom width and by reference fixed the location. Supplements thereto were enacted as necessity therefor became manifest, by which some deviations were made from the original location. The original project was completed in 1916.

The purpose of this Waterway was to improve certain existing waterways so as to furnish a good route for vessels through the numerous bodies of water that lie between the mainland and beaches of the coast of New Jersey. The passage from Cape May to Bay Head could be made with the waterways in their original state, but there were sections so shoal that they could not be navigated at low water by the ordinary boat. Others were fairly deep but so narrow and devious as to occasion difficulty to the boatmen.

The reports of previous years set forth the amount of dredging in the original project and the details as to the maintenance of the project width and depth.

This Inland Water constitutes an asset of great value to the entire State and serves intimately important interests—notably, the resort business, one of the most important activities in this State. Its direct money value as an asset to the State is enormous. It is located centrally and readily accessible to many of our largest Eastern cities and it is safe to say that the opportunity afforded for sailing or motor-boating is one of the factors in attracting to our resorts num-

bers of people who might otherwise spend their summer seasons in other States. Aside from the contribution to the building up of the shore resorts attributable to these enthusiasts for boating, the business activity directly resulting from the construction, supplying and maintenance of these boats, is important.

In a strictly commercial sense, as a Thoroughfare the Waterway carries considerable shipping in connection with the fishing and oystering industries. The section between Cape May and Anglesea is traveled by the fishing fleets, as is the section between Little Egg Harbor Inlet and Absecon Inlet. This latter stretch is also used by the tugs and barges that remove the garbage from Atlantic City to the factories in Great Bay. The traffic in this section at present demands a greater depth than six feet. The oyster boats from the south, going to Barnegat and Little Egg Harbor Bays, enter the Absecon Inlet and follow the Inland Waterway northward, thereby avoiding the long and sometimes dangerous trip around Brigantine Shoals. These commercial vessels, however, can use the Waterway only on the top of the high tides.

Maintenance: Work on the closing of Turtle Gut Inlet by Cape May County has progressed very slowly and it seems probable will not be finished for several months. Until this is done it would be unwise to redredge Swain's Channel for the cross current caused by the open inlet would soon cause the channel to fill up. An examination made in June shows conditions about the same as last year, that is, the shoaled area covers a distance of about 1,500 feet.

The Appropriation bill of 1918 allotted only \$6,000 for maintenance dredging of the inland waterway, a sum insufficient, at present high prices, to restore a section of the channel where shoaling had taken place. The Board therefore requested the Appropriation Committee of the Legislature to re-appropriate this, which was done. To this was added \$4,000, making \$10,000 in all, available for this purpose for the following fiscal year.

Surveys of the shoaled areas between Atlantic City and Great Bay were begun late in June and are still under way. When completed and plotted bids will be asked for redredging this section.

Bay Head-Manasquan Canal: The contract for further construction of this canal made last year with Louis B. Harrison at 36 cents a cubic yard was completed November 12th, 1918. Under this the Canal was finished from station 63+42 to station 45+50, a distance of 1,792 feet, at a cost of \$49,899.96.

The next section was awarded to Matthews Bros., the lowest bidders, at 32.7 cents a yard. Excavation under this contract was commenced November 13th, 1918, and finished May 17th, 1919. This carried the completed work to station 37+77.3, a further distance of 772.7 feet, at a cost of \$24,950.

At the March meeting the Board directed that bids be received for the next section, for which \$25,000 was available. These were received as follows:

<i>Name of Bidder</i>	<i>Address</i>	<i>Price per cu. yd.</i>
Hill Dredging Co.	Atlantic City, N. J.	22c.
Delaware Dredging Co.	Philadelphia, Pa.	48c.
Louis B. Harrison	New York, N. Y.	26c.
Coast and Inland Dredging Co. ...	Atlantic City, N. J.	27.4c.
Mohawk Dredging Co.	Herkimer, N. Y.	35c.
Matthews Bros.	Red Bank, N. J.	29.5c

The contract was awarded to the lowest bidder, the Hill Dredging Company, and the work is now under way. The funds available will reach to about station 28, leaving 2,800 lineal feet more of excavation to the Manasquan River, the northerly terminus, and 45% of the excavation still to be done.

Condemnation proceedings have been begun for acquisition of four (4) of the tracts, or part thereof, on the Right of Way.

Metedeconk River Survey: Under Chapter 87, Laws of 1917, the Board was authorized to make a survey and prepare plans and estimates for deepening the Metedeconk River from the inland waterway near Bay Head to or near the Railroad Bridge at Lakewood. The Channel to be 100 feet wide and six feet deep at mean low water.

An appropriation of \$2,000 was made last year for this purpose and the Board directed that the survey be made. Accordingly a field party was organized and the survey started on December 1st at the inland waterway opposite the mouth of the Metedeconk River. For the first four miles there is a well defined channel, the River varying in width from 400 to 800 feet. No dredging will be required for a substantial portion of this distance and the remainder will be light work. Over the rest of the route, a distance of approximately five miles, the territory is wooded and swampy, the stream narrow and tortuous. Here a preliminary line was cut to secure levels and cross-sections for computation of the necessary excavation.

The field data is now to be plotted and the quantities determined. From this a report and estimate of cost will be prepared.

While the survey was in progress members of the Board and staff made an inspection of the territory.

DEPARTMENT OF POWER VESSEL INSPECTION.

All statutes prior to 1919, on the inspection of power vessels and power vessel equipment, have been repealed by Chapter 232 of the Laws of 1919. One statute—Chapter 233 of the Laws of 1919, entitled "An Act defining power vessels and providing for the registration of the same and the licensing of the masters thereof; providing for the regulation of power vessels and boats navigating the waters within the jurisdiction of this State above tidewater; fixing the amount of license and registration fees and providing penalties for violation of its provisions," has been enacted in their stead. The benefits resulting from this change became manifest at once.

The former laws governing this Department never were satisfactory to the Board. The general act of 1906, creating this Department had proved inadequate and had been repeatedly supplemented and amended but the resulting mass of legislation was inconsistent, inflexible and prolix. That act of 1906 had regard almost entirely to steam vessels and set out in great detail the rules as to inspection; but the steamers on the lakes had been entirely supplanted by gasoline motor boats. That act required the services of a steam boiler inspector; but there were no steam boilers on the lakes; it required the licensing of masters and engineers of boats carrying passengers or freight for hire; but it did not require the licensing of the operator of a privately owned or hired motor boat.

The need for radical changes in the law was evident. During the summer of 1918 much time and study were devoted to conditions at the lakes. This included personal observations and conferences with men prominently and actively identified with boating interests. The wholesome and generous support and co-operation of these men helped in the highest degree in presenting to the Board the needs of the community in respect to supervision of boating activities.

The new legislation was so framed as to give the Board wide powers in fixing rules and regulations. This insures flexibility so that changing conditions can be met as the need arises and the rules can be readily perfected if found in any way inadequate. While reserving the right to change these regulations if necessary, a most conscientious effort was made to have them just as effective and suitable as possible from the outset. With this end in view a set of rules was drafted which were critically discussed in conferences between men

interested in boating activities and members of the Board and staff. Following this a public hearing was advertised and held at Lake Hopatcong in May at which the regulations as amended were submitted to the most searching analysis and discussion—a number of local boating enthusiasts and professional passenger boat operators taking active part. The regulations were voted to be highly satisfactory in general, a very few slight modifications being incorporated as a result of this hearing. Following this the regulations were printed for posting in prominent places, and for distribution.

It has been the policy and aim of the Board consistently to meet the actual needs of the community and all parties interested. These people have been given to understand that the purpose of the Board is to protect from his own acts and from the mismanagement of others, everyone venturing on the lakes. It was appreciated that unless everyone on these waterways knew the rules of the road that the person ignorant thereof was always a menace. Therefore, the applicant for license to operate a motor boat is now obliged to pass an examination as to his physical fitness and a written examination as to his knowledge of the rules of the road and the operation of a power boat.

A detailed statement of the receipts appears in the appendix.

QUESTIONS OF LAW BEARING ON BOARD'S WORK.

The work of the Board is of such character that almost every matter coming before it for consideration involves questions of law. For example: grants or leases of riparian lands unless supported by upland ownership in the applicant, can only be made after notice to the upland owner pursuant to the statute; occupations of riparian lands which are not supported by grant, lease or license; prosecutions under the "Power Vessel Act" of 1919; rights of carriers to occupy riparian lands under special legislative charters without compensation; right to locate highway bridges on riparian lands without compensation, etc.

It is necessary that the Board be advised in these cases, before it may act, and to meet this situation, special counsel has been assigned.

Approximately 1,600 cases of what appear to be illegal occupation of riparian lands, have been discovered. These cases are being investigated and where the facts warrant, suit will be brought.

Where the question is doubtful, a test case will be begun in order that the law may be settled.

Two cases are now pending, and a number of others are about ready for suit.

For the complete protection of the State's interest in riparian lands, additional legislation is deemed necessary and an effort will be made to procure such legislation this winter.

Amendments to the "Power Vessel Act" will also be offered, in order that a more efficient administration of that act can be rendered by the Board.

PROPOSED DEVELOPMENT OF SHOALS IN NEW YORK BAY.

The Board received an application for approval of plans, ambitious though very general in character, for proposed improvements on the area surrounding the shoal known as Oyster "Island" in New York Bay. The applicants allege title to Oyster "Island" and Robbins Reef, based on a "survey" and "return" by the Proprietors of East Jersey.

This is not a new question, having been agitated as far back as 1887, when an application for a grant of the lands under water adjoining Oyster "Island" was presented to the former Riparian Commission.

In the present application, the Board submitted the documents on which applicants base their title to these lands to the Attorney General and solicited advice as to its powers and duties. In the opinion dated October 7th, 1918, Assistant Attorney General Boggs advised the Board that this application should not be granted.

NEWARK BAY BRIDGE OF CENTRAL RAILROAD OF NEW JERSEY.

The Central Railroad Company of New Jersey submitted a new application for a permit to rebuild its bridge over Newark Bay between Bayonne and Elizabethport. The structure contemplated would be a four-track steel bridge on masonry, with two bascule openings of 125 feet clear width, of an estimated cost of \$7,000,000 and would involve extending the embankment on the westerly side of the bay out to the pierhead line approved by the Secretary of War November 13th, 1916; on the easterly side the embankment would extend out

to the pierhead line approved by the Secretary of War September 13th, 1913.

The proposed extension on the westerly side of the bay would bring this solid fill embankment to a point 1,120 feet outside the pierhead line adopted in 1915 by the Board; the pierhead and bulkhead line approved November 13th, 1916, by the Secretary of War had not been adopted by the Board.

As instructed by the Board at the June meeting the Director addressed a communication to the Secretary of War requesting that the question of these lines of November 13th, 1916, be re-opened for consideration.

At the July meeting the Board resolved that the permit for the proposed reconstruction must include these conditions:

That the solid fill be extended only to the bulkhead line approved by the Federal Government May 10, 1915, and adopted by this Board on August 3, 1915; and that the applicant be required to install a two hundred-foot draw opening at the main channel and provide a two hundred-foot span at the westerly side of Newark Bay so that a draw could be installed when required by this Board.

On July 29th, 1918, the New York Harbor Line Board held a hearing at Newark at which parties interested were afforded an opportunity to present their views on this question of changing the harbor lines on the westerly side of Newark Bay. The position of this Board was clearly and forcefully set forth at this hearing by President Smith and Vice-President Jenkinson, who both argued for preserving the maximum potentialities of the waterway. Among the points especially stressed against any extension of the harbor lines adopted by this Board were: 1st—the detrimental effect on the development of a secondary or parallel channel on the westerly side of Newark Bay; 2d—the probable increase of silting if the waterway were suddenly contracted as proposed in the application under review; 3d—the increased trouble from ice at such contractions.

October 8th, 1918, the New York Harbor Line Board wrote that it had made a report to the War Department at Washington. February 7th, 1919, Secretary of War Newton D. Baker advised that he had that day, upon favorable recommendation of the engineer authorities, revoked the lines of 1916 and re-established those of 1915.

May 14th, 1919, the application was withdrawn by the railroad company.

UNAUTHORIZED DREDGING IN DELAWARE RIVER.

Determined effort has been put forth to secure payment to the State for the material dredged for commercial purposes from the bed of the Delaware River. Chapter 123 of the Laws of 1891 in Section 1 prescribes that no person or corporation shall dig, dredge or remove any deposits of sand or other material from the lands of the State lying under tidal waters without a license so to do first obtained from the Riparian Commissioners. The powers and duties given to that body under this act have devolved upon this Board. The provisions of this statute have not always been observed by parties conducting dredging operations. Licenses for dredging have been issued hitherto and some return has been made to the State, but this applies mainly to the resort section where land is reclaimed by filling in.

In the Delaware River, the really important scene of the dredging operations, the statute has been unheeded.

The bed of the Delaware River contains deposits of stone, gravel and sand used by builders and moulders. These materials have been dredged for many years by various concerns, some of which use large plants in the operations. These parties dredge and grade the various materials which they sell in the market. The business seems to have been profitable to these operators but the return to the State, the original owner of the soil, has been nothing. The question has been vigorously attacked with a view to securing adequate compensation to the State.

At the same time a plan of inspection was put into effect by which proof was obtained that various parties were dredging on the New Jersey side of the river; the locations of these operations were frequently made with surveying instruments, and evidence so obtained has been prepared for litigation.

PROPOSED AGREEMENT BETWEEN THE BOARD OF COMMERCE AND NAVIGATION AND THE DUNDEE WATER POWER AND LAND COMPANY.

Joint Resolution No. 4, approved March 4th, 1918 (continued as Joint Resolution No. 5, approved April 14th, 1919), is entitled "Joint Resolution to authorize the Board of Commerce and Navigation to enter into an agreement with the Dundee Water Power and Land Company, subject to the approval of the Legislature, with regard to the improvement of the Passaic River, and the surrender by said company of some of its charter rights."

Pursuant to this act public hearing was held at Paterson and subsequently negotiations ensued between the representatives of this Board and of the Dundee Water Power and Land Company, respectively. These questions were put to the Dundee Water Power and Land Company:

- (1) Actual cost to the Dundee Water Power and Land Company to fulfill the provisions of its charter as to navigation;
- (2) Under what conditions the said Company would surrender its rights, if any, to collect tolls if navigability were effected;
- (3) Would the said Company surrender all rights to control or supervise the locks if navigability were effected;
- (4) The amount said Company would contribute toward effecting navigability around the Dundee Dam, giving up all rights, if any, to collect tolls for navigation and to control or supervise the locks.

In a communication dated December 20th, 1918, the Dundee Water Power and Land Company replied to these questions as follows:

- (1) That the actual cost to that Company to fulfill the provisions of its charter concerning navigation, would amount to \$76,500;
- (2) That the Dundee Water Power and Land Company is willing to surrender its right to collect tolls upon condition that navigability be effected by the State of New Jersey or the Government of the United States;
- (3) That the Dundee Water Power and Land Company will agree to surrender its right to control or supervise the locks if navigability be effected, provided no charge be made against the Company for the maintenance, control or operation of the locks and no tax imposed upon the Company for this purpose;

provided that an agreement be made by the State or Federal Government with the lessees of that Company, satisfactory to such lessees, and releasing the Dundee Water Power and Land Company from any liability to said lessees;

(4) That the Dundee Water Power and Land Company offers to relinquish its right to collect tolls, and offered further as a contribution toward navigation the sum of \$50,000, when money for that purpose has been appropriated by the State or General Government, and the work on the locks has advanced to the extent of \$50,000.

This letter was supplemented by the letter of January 9th, 1919, from The Society for Establishing Useful Manufactures and The Associated Water Companies Located at Little Falls, which follows in full:

*"Board of Commerce and Navigation of the State of New Jersey,
No. 75 Montgomery Street. Jersey City, N. J.*

"GENTLEMEN—

"Referring to the proposed navigation of the Passaic River between Passaic and Paterson, we beg to say that if storage is created on the Passaic River or one of its tributaries of a capacity of approximately 300 million cubic feet, so that water drawn from it in reaching the Dundee Dam shall pass down the Little Falls and the Great Falls thereof, and a contract is entered into so that water is released from this reservoir in quantity sufficient to maintain an average flow of 130 cubic feet per second at the Great Falls at Paterson; the Society for Establishing Useful Manufactures, and the associated Water Companies at Little Falls will contribute such a reservoir site, or, if some site should be chosen, as that at Millington, for this purpose, they will contribute \$100,000, which sum shall be the last sum contributed to the completion of this reservoir.

"The amount, 130 c. f. p. s., is derived in this way, namely—There would be required 72 c. f. p. s. to give the manufacturers at Passaic the water needed at present and in the immediate future for their manufacturing purposes, not for power; there will be diverted past the Dundee Dam, by the trunk sewer, approximately 18 c. f. p. s., which now is tributary to the Dundee Dam; and we assume that a quantity of water equal to approximately 40 cubic feet per second would be required for navigation; this amount being estimated from the flow of the Morris Canal as measured at Little Falls in July and August, 1897.

"If the Millington site were taken for the reservoir, and the water were substantially drawn down by the 1st of November in each year, it would become a flood prevention reservoir, such as was recommended by the Flood Commission.

"Yours very truly,

"(Signed) EDMUND LE B. GARDNER.

"Governor,

"Society for Establishing Useful Manufactures.

"(Signed) EDMUND LE B. GARDNER,

"President,

"Associated Water Companies located at Little Falls."

Pursuant to the order of the Committee of the Board an examination was made of the amount of water required for navigation purposes if the Passaic River navigation be extended to Paterson, and the sources and amount of supply therefor. The report concludes as follows:

1. The improvement of navigation of the Passaic River to Paterson by locks and dams is feasible, provided the present low flow of the River is increased.

2. By building a storage reservoir on the Passaic River at Millington with its flow line at elevation 245 and storing 4,000,000,000 cubic feet the present low water flow in the Passaic River at Great Falls can be increased to 130 cubic feet per second.

3. This quantity of water is sufficient for navigation purposes and the use of 72 cubic feet per second by the manufacturers at Passaic for washing and other industrial uses, but not for power.

4. This reservoir will retain the spring floods entirely above Millington in years of certain run-off, and greatly reduce their intensity in other years.

The investigations have been continued for report to the next session of the Legislature.

EXAMINATION OF STATE BOUNDARY LINE MONUMENTS.

Under the provisions of Chapter 170 of the Laws of 1891, entitled "An Act to provide for the care and preservation of monuments marking the boundary lines of this State," the former Riparian Commission was required, every three years, to make an examination of the monuments marking the boundary between the States of New Jersey and New York. This duty now devolves upon this Board. During this year this examination was made jointly by an engineer delegated by the State Engineer and Surveyor of New York and by an engineer designated by the Board of Commerce and Navigation of the State of New Jersey. The joint report of these engineers dated June 25th, 1919, is given herewith. This transmitted the detailed description of the location and condition of all of the monuments.

A committee has been appointed by the Board to consider and act upon these recommendations.

JOINT REPORT

OF THE ENGINEERS ON THE EXAMINATION OF THE MONUMENTS MARKING THE
BOUNDARY LINES BETWEEN THE STATES OF NEW YORK AND NEW JERSEY.
MADE IN MAY, 1919.

The undersigned Engineers, designated by the State Engineer and Surveyor of New York and the New Jersey State Board of Commerce and Navigation, to make an examination of the monuments marking the boundary lines between the States of New York and New Jersey, have the honor to submit this report and detailed description of the monuments.

The monuments marking that part of the New York and New Jersey boundary line, lying across lands under water in Raritan Bay, consist of the Romer Beacon or Lighthouse, the Permanent Monument, the Great Beds Lighthouse, and the Morgan Range Beacon. (See photographs.)*

The Range Monuments marking that part of the New York and New Jersey boundary line, lying across lands under water in Arthur Kill and the Kill von Kull, are of granite four feet long, the tops are dressed eight inches by eight inches in cross-section and for a distance down of about eight inches. On the north face generally of each are cut the letters "N. Y." and "N. J.," and on the south, or opposite face, the letters "B. M." (meaning "Boundary Monument") and the figures "1889." One-quarter inch grooves are cut at right angles across the top parallel with the sides, one groove entirely across the top and the other only partially across. They project about four to eight inches above ground.

The monuments marking that part of the New York and New Jersey boundary line, extending from the Hudson River to the Delaware River, may be divided into five classes and consist first, of the original mile monuments erected in 1774; second, the new mile monuments; third, the Railroad monuments; fourth, the Wagon Road monuments; and fifth, the Terminal and Witness monuments, all of which were set by the Joint Commission in 1882, except the original monuments of 1774, which were reset when necessary, by said Commission at said time.

The monuments of the first class, the original mile monuments, are composed for the greater part of red sand stone posts, dressed with eastern and western upper angles rounded and are generally fifteen inches wide in the direction of the boundary, seven inches thick and project above ground about twenty inches. The remainder are of rough irregular shape rock of different material, all having the name of the State cut on the appropriate side of the stone, and also the number of the mile distant from the eastern terminus of the line.

The monuments of the second class, the new mile monuments, are of granite, four feet long, the tops dressed generally six inches by six inches in cross section and for a distance down of six inches. Upon the north side are cut the letters "N. Y." and on the south side the letters "N. J.," and upon the east side the number corresponding to the number of miles distant from the eastern terminus of the line. One quarter inch grooves are cut at right angles across the top parallel to the sides; one groove shows the direction of the boundary, and the other is perpendicular to it, they project above ground generally about six inches. They are set east of and generally adjacent to the old mile stones.

The monuments of the third class, the Railroad monuments, are generally similar to the mile monuments except that they are not marked with numbers.

The monuments of the fourth class, the Wagon Road monuments, are of granite and are four and one-half feet long, the tops are dressed six inches by twelve inches in cross section and for a distance down of twelve inches. They

are marked in the same manner as the Railroad monuments and project generally about twelve inches above the ground.

The monuments of the fifth class, the Terminal and Witness monuments, are as follows, viz.:

The monument at the eastern terminus is a large block of trap rock, seven feet six inches long, three feet two inches high and about four feet thick. It is located at the foot of the Palisades and about six inches above storm tides of the Hudson River. It is marked with a groove upon its perpendicular eastern face for its full height, at a distance of two feet south from its northerly end, and is further marked with the words "Latitude 41° North" and on the north side of the groove the words "New York" and on the south side thereof the words "New Jersey." (See photographs.)*

The monument at the western terminus of the line is of cut granite two feet four inches long, one foot four inches wide and projects now only one foot five inches above the surface of the rock in which it is imbedded. It is marked upon its top surface with one-quarter inch grooves, showing the direction of the lines of the three States which meet there, and within the surface bounded by the lines the initials of the respective States are cut. The north side of the stone is further marked with the words "Tri States Monument." Each of these Terminal monuments has a witness or reference monument located in the most suitable place nearest to it. (See photographs.)*

The examination of the boundary from the Hudson River to the Delaware River was begun at Station Rock on the Hudson River on May 5th, 1919. The monuments, with few exceptions, hereinafter noted, were found in good condition. Some of the original mile monuments set in 1774 are gone or lie flat near the granite monuments set in 1882 to further preserve the mile points. Several of the road monuments are covered through raising the grade or other construction and one has three feet of its length exposed and leans against a reservoir wall. Most of the monuments are chipped at the corners and edges and a few lean slightly though still firmly imbedded.

The policy of informing residents of the location of the monuments and impressing them with the importance of preserving the same, also that of changing the names of the title owners in the detailed descriptions to conform with transfers, has been followed consistently. Where the old witness points have disappeared new ones have been chosen and noted. Where access to a monument is difficult, notes giving directions have been added to the end of the detailed description which follows as a part of the report. Considerable time was lost by the lack of topography on the official boundary maps, especially new roads, probably laid out since those maps were made. This information, we believe, may be obtained from official records and should be plotted and placed on the tracings prior to the next inspection.

Photographs were taken of the terminal monuments and witnesses, and are attached to the detailed description of these accompanying this report.

For the proper preservation of the boundary between the Hudson and Port Jervis on the Delaware, we desire to make the following recommendations.

1. That the latitude inscription on the eastern terminal monument at the foot of the Palisades be recut, as it is nearly obliterated, and that the pole and sign-board be painted.

2. That a sign be placed at the eastern witness or reference monument warning against chipping or defacing this monument as several large pieces have been broken from the edges in a shameful manner. (See photograph.)* Also that the Inter-state Palisades Park Commission, now opening paths in

this section, be requested to open a path along the New York-New Jersey line from this monument to the Boulevard so that the same may be readily reached by the citizens of both States.

3. That Monument No. 15, covered with road material, be raised and reset in concrete.

4. That Monument No. 20, situated on the slope of a hillside, be reset in concrete.

5. That Monument No. 23, which is on a sloping hill, loose and about ready to fall, be reset in concrete.

6. That a new monument be set in concrete in place of No. 43, which is under cement curb and sidewalk.

7. That Monument No. 44 be raised to grade of railroad and set in concrete.

8. That Monuments Nos. 52 and 53 be moved to the new roads nearby, as roads on which now located are abandoned.

9. That Monument No. 96 be reset in concrete as it is now exposed and leaning against a reservoir wall.

10. That Monuments Nos. 113 and 115, now covered, be raised and set in concrete.

That the official maps showing the monuments between the Hudson and the Delaware be brought down to date.

After completing the examination from the Hudson to the Delaware River your engineers proceeded immediately to Perth Amboy for the inspection of the monuments lying in Raritan Bay, Arthur Kill and Kill von Kull. Practically all these monuments are in good condition. A few we were unable to find. Owing to the rapid upbuilding of this territory, principally by industrial plants, a considerable number of these monuments are surrounded by or inside buildings. Also quite a few are several feet below grade. In such cases a wooden box, terra cotta pipe or other device with a wooden cover surrounds the stone and extends to a point near the present surface of the ground. We found the covers removed and the holes filled with debris in a few instances. These covers being of a very temporary character and the grade having been established, we recommend that these monuments be raised to grade, and, if possible, where now located among or within buildings, a new point in the range be chosen from which sights may be readily taken. These are enumerated in our list of specific recommendations which will be found later on in this report. As on the north boundary, we found ourselves much inconvenienced by the ancient topography on the official charts.

No inspection was made of the section from New York Bay to Station Rock on the Hudson River, as we had no description of the Points.

Since returning from the field, however, we have made an examination of the history of the boundary and found in the "Report of the Riparian Commissioners of New Jersey for the year 1891" a detailed description of all range points on this portion of the line. They consist of crosses in rocks, church spires, chimneys, public buildings, U. S. Coast and Geodetic Survey monuments, etc. From the best information obtainable it appears these have never been examined since they were established. In view of the fact that this is the most valuable section of the whole territory we recommend that an inspection be authorized and data procured as to amount of work necessary to mark this portion of the boundary to conform with the remainder. An estimate of cost should be included.

For the better preservation of the boundary from Raritan Bay to Station Rock on the Hudson River we respectfully submit the following specific recommendations:

1. That an examination be authorized of the section between New York Bay and Station Rock on the Hudson River.
2. That the Permanent monument and the Morgan Beacon be repainted.
3. That Monuments Nos. 4, 6, 8, 14, 20, 23, 24, 47, 48, 49 and 51 be raised to grade and where situated in a building or surrounded by buildings, a more favorable location be chosen, if practical.
4. That Monument No. 34 be raised and set in concrete (or a new one set in this range) and located by angles and distances from New York City and U. S. Coast Survey monuments nearby.
5. That Monuments Nos. 41, 42, 43 and 44 be reset in concrete in the road-bed of the B. & O. R. R.
6. That a new monument be set in concrete near the highway at the edge of the meadow in place of No. 45, which is covered.
7. That a new map showing topography (except contours) of all the section from Raritan Bay to Station Rock on the Hudson be compiled in sections of suitable size marking the names of roads or streets leading to monuments, and the names of industrial plants within which monuments are situated. We suggest a scale of one inch to one thousand feet for this map.

To do all the above work there should be a combined appropriation of \$10,000.00 or \$5,000.00 from each State.

*Photographs filed with original report.

POLICY OF CONGRESS REGARDING WATER TERMINALS.

The act of Congress approved March 2d, 1919, entitled "An act making appropriations for the construction, repair and preservation of certain public works on rivers and harbors, and for other purposes," has more than the usual interest for those interested in waterway development. This refers particularly to the item in said statute quoted herein:

"It is hereby declared to be the policy of the Congress that water terminals are essential at all cities and towns located upon harbors or navigable waterways and that at least one public terminal should exist, constructed, owned, and regulated by the municipality, or other public agency of the State and open to the use of all on equal terms, and with the view of carrying out this policy to the fullest possible extent the Secretary of War is hereby vested with the discretion to withhold, unless the public interests would seriously suffer by delay, moneys appropriated in this Act for new projects adopted herein, or for the further improvement of existing projects if, in his opinion, no water terminals exist adequate for the traffic and open to all on equal terms, or unless satisfactory assurances are received that local or other interests will provide such adequate terminal or terminals. The Secretary of War, through the Chief of Engineers, shall give full publicity, as far as may be practicable, to this provision."

The question of public terminals has been considered and provided for in the legislation of this State for many years past. The most important statutes authorizing the governing bodies of municipalities to build or operate terminals are:

Chapter 297 of the Laws of 1888, approved April 17, 1888, P. L. 1888, p. 447.
A supplement thereto, approved March 21, 1901, P. L. 1901, p. 203.

Chapter 272 of the Laws of 1907, approved October 21, 1907, P. L. 1907, p. 686.
A supplement thereto, approved March 24, 1910, P. L. 1910, p. 65.
A supplement thereto, Chapter 408 of the Laws of 1912, P. L. 1912, p. 909,
A supplement thereto, Chapter 70 of the Laws of 1913, P. L. 1913, p. 107.

Chapter 397 of the Laws of 1915, approved April 23, 1915, P. L. 1915, p. 758,
and

Chapter 398 of the Laws of 1915, approved April 23, 1915, P. L. 1915, p. 760.

Information on this point has been solicited from, and furnished by, the staff of the Board to the United States War Department.

NEW JERSEY SHIP CANAL PROJECT.

The Board and its predecessors in control of the New Jersey Ship Canal project have caused the center line of the canal as indicated by the maps of the United States Government to be marked by permanent monuments and the right of way necessary for the construction of the canal to be surveyed.

The State, by appropriate legislation, has agreed that it will acquire the necessary right of way for the canal and has authorized such right of way when so acquired to be ceded to the Federal Government whenever construction shall be commenced.

The project now awaits action by the Federal Government.

In the various reports of the Special Board of Army Engineers, of the Board of Engineers for Rivers and Harbors and of the Chief of Engineers of the War Department, there has not been entire agreement as to the type of canal to be constructed, nor as to the responsibility of the Federal Government towards this project. The special difference is in the question as to whether the canal shall be constructed as a sea level ship canal without locks, except for emergency use at the Delaware River end, or whether the canal shall be first constructed as a lock canal for vessels of light draft.

The Board has always strongly taken the position that the canal should be constructed as a sea level ship canal capable of accommodating vessels of 25-foot draft.

The development of great manufacturing industries in the vicinity of New York and Philadelphia, and the absence of proper railroad terminal facilities at these cities, more especially at New York, have increased the congestion of freight with its attendant delay at both of these cities.

During the war it is well known that serious embargoes were placed against New York by the Railroad Administration, and attempt was made not only to divert railroad business from New York, but also to discourage the location of industries in the vicinity of New York, as these would need large amounts of raw materials to be brought in and finished products to be dispatched by rail service. This, of course, had a detrimental effect upon New Jersey, as the main trunk lines leading to New York reach New York through the New Jersey gateway.

There is every reason why a canal capable of accommodating vessels up to 25-foot draft should be built between the great industrial centers on the Delaware River and on the Hudson River.

The New York State barge canal is practically finished; the Cape Cod canal has been in operation for several years. The Government is taking over the Chesapeake and Delaware canal and will render that navigable for proper craft; the New Jersey ship canal, which is a link connecting the above canals, and, unquestionably, the most important link in the entire Intracoastal Waterway system, should be started at the earliest possible moment and pushed to rapid completion.

There is believed to be equipment and machinery in the possession of the Government which might be devoted to this purpose, and the Board believes that with the backing of the State and with the support of the Representatives of the State in Congress this project can be promptly advanced. The Board proposes to use every possible means of advancing this project.

THE PROTECTION OF THE NEW JERSEY COAST AGAINST EROSION.

The citizens of the State who are not directly interested in property along the ocean front of the State have little conception of the changes that have been occurring in the shore line for the past few years and of the losses and damages to the beach front by the progressive erosion that is taking place. Many beautiful residences have been abandoned. Large sums of money have been spent in an effort to save residences and highways from destruction. In some instances, the property owners have abandoned the fight and have moved their cottages bodily back from the shore front.

Along the Jersey frontage there is probably every conceivable design of coast protection represented that has been tried anywhere else in the world, and side by side we find structures erected for the protection of the beach whose theory of effectiveness is based on entirely different conceptions of the methods which would be effective. Not only have some of the structures built failed to stop the erosion, but they have exercised bad effects upon properties nearby which have come under their influence.

More than four years ago the former New Jersey Harbor Commission, which was later merged into this Board, took up the question of the protection of the New Jersey beaches and prepared certain recommendations as to what should be done at two localities where serious erosions were occurring.

During the winter of 1915-1916 heavy storms attacked the beaches in the vicinity of Seabright, causing great damage to properties and threatening, in addition, a railroad and a highway.

Following that a meeting was held in the State Capitol, at Trenton, with a view of devising means whereby protection could be afforded.

A recommendation was made to the New Jersey Legislature that a survey be made to determine the best means for protecting the beaches of New Jersey and outlining about what such a survey should consist of.

Legislation has been enacted by the State looking toward participation by the State in coast protection at certain localities contingent upon similar appropriations being made by the counties and by the Federal Government, but there have been no results in the way of authorization of surveys or in the carrying out of the protection of the beaches as a State project.

Meanwhile, the erosion of the beaches at certain localities has continued, and it will be increasingly difficult to recover the sands that have been moved by the currents as the erosion continues.

It is not necessary to make any argument as to the value to the State of the beaches along the entire ocean front. The New Jersey beaches are a national institution, bringing a population from the whole country that adds to the wealth of the State.

It is only within the last few years that coast protection works have been seriously needed at certain of the bathing beaches, but there is danger now of the erosion being so serious as to greatly detract from the recreational features of certain of the better known resorts along the coast.

The Board is impressed with its duty as custodian of riparian lands of the State to urge upon the State the necessity of taking some action toward the preservation of such lands, and as the Board, having authority over navigation, is concerned with the shifting of sands as it may affect the inlets along the coast. These inlets form entrances to the Inland Waterway system of the State, which waterways also are under the jurisdiction of the Board.

The Board believes that it will be splendid economy for the State, as well as the municipalities affected, if prompt and effective work shall be done first in the way of study and planning and later in the actual construction of, or control over construction of, coast protective measures, and the Board presents for the consideration of the Governor and the Legislature the advisability of the State formally recognizing the situation by proper legislation and appropriation so that the work of protecting the beaches and inlets may be undertaken which it deems to be a proper function of this Board.

APPENDIX "A."
Conveyances by Board of Commerce and Navigation from July 1, 1918, to June 30, 1919.

GRANTS.					
Date.	To Whom Made.	Locality.	County.	Amount.	
Nov. 19, 1917.	The United States of America	Newark Bay	.....	\$25.00	
Nov. 19, 1917.	The United States of America	Newark Bay	.....	25.00	
Nov. 19, 1917.	The United States of America	Newark Bay	.....	25.00	
Aug. 6, 1918.	Borough of Point Pleasant Beach	Atlantic Ocean	.....	120.00	
Aug. 6, 1918.	The City of Camden	North Branch of Newton Creek	Ocean	481.00	
Aug. 6, 1918.	The City of Rahway	Rahway River	Camden	204.66	
Sept. 16, 1918.	MacAndrews and Forbes Company	Delaware River	Union	1,640.00	
Sept. 16, 1918.	State Highway Commission of New Jersey	Mantua Creek	Camden	41.00	
Nov. 29, 1918.	Andrew W. Mellon and Richard B. Mellon	Newton Creek and North Branch of Newton Creek	Gloucester	39,536.00	
Dec. 9, 1918.	Perth Amboy Dry Dock Company	Arthur Kill or Staten Island Sound	Camden	25,000.00	
Dec. 16, 1918.	The Mayor and Aldermen of Jersey City	Passaic River	Middlesex	1,650.00	
Dec. 16, 1918.	The Mayor and Aldermen of Jersey City	Passaic River	Essex	1,520.85	
Dec. 16, 1918.	The Mayor and Aldermen of Jersey City	Hackensack River	Bergen	5,628.30	
Dec. 16, 1918.	The Mayor and Aldermen of Jersey City	Hackensack River	Hudson	5,386.50	
Dec. 20, 1918.	Perth Amboy Dry Dock Company	Arthur Kill or Staten Island Sound	Bergen	20,000.00	
Feb. 24, 1919.	Gertrude D. Hoyt and Richard R. Boniface	Oyster Creek	Middlesex	275.00	
Feb. 24, 1919.	New York Shipbuilding Corporation	Newton Creek	Hudson	3,900.00	
Feb. 24, 1919.	Michael O'Neil	Raritan Bay or Shrewsbury River	Camden	365.84	
Feb. 24, 1919.	Frederick W. Strohmeyer and Margaret Strohmeyer, his wife	Raritan Bay or Shrewsbury River	Monmouth	134.16	
Mar. 17, 1919.	Avon Land Company	Shark River	Monmouth	389.16	
Mar. 17, 1919.	New York Shipbuilding Corporation	Newton Creek	Monmouth	900.00	
Mar. 17, 1919.	Wilson & Co., Inc.	Mill Creek	Camden	100.00	
May 19, 1919.	Emergency Fleet Railway Company of New Jersey	Newton Creek	Hudson	5,253.30	
May 19, 1919.	The Keystone Watch Case Company	Rancocas River	Camden	768.00	
June 16, 1919.	Warner Sugar Refining Company	Hudson River	Burlington	55,902.00	
June 16, 1919.	New York Shipbuilding Corporation	Delaware River and Newton Creek	Bergen	610.00	
Total				\$169,880.77	

26 Grants.

FIFTEEN-YEAR LEASES.

Date.	To Whom Made.	Locality.	County.	Annual Rental.	Convertible Within Fire Years at
July 15, 1918.....	James W. Deevy	Hackensack River...	Hudson.....	\$5,788.12	\$82,687.50
Nov. 29, 1918.....	Martha A. Williams	Delaware River	Cumberland.....	20.19	288.45
Total					\$82,975.95

(CONVERSIONS.)

Date.	To Whom Made.	Locality.	County.	Amount.
Nov. 29, 1918.....	Standard Shipbuilding Corporation (conversion of its lease dated July 17, 1916)	Newark Bay	Union and Hudson	\$45,900.00
Mar. 17, 1919.....	Avon Land Company (conversion of part of lease to William Swanton dated January 31, 1880) ..	Shark River	Monmouth	479.46
Mar. 17, 1919.....	The Borough of Avon by the Sea (conversion of part of lease to William Swanton dated January 31, 1880)	Shark River	Monmouth	320.54
April 21, 1919.....	Edward Porter (conversion of lease to The Ford Realty Company dated June 18, 1917)	Passaic River	Hudson	76,260.00
Total				\$122,960.00

(EASEMENTS.)

Date.	To Whom Made.	Locality.	County.	Amount.
June 17, 1918.....	Hackensack Water Company	Hackensack River	Bergen	\$100.00
July 15, 1918.....	Passaic Valley Sewerage Commissioners	Passaic River	Essex, Bergen and Passaic..	375.00
Jan. 20, 1919.....	The Mayor and Aldermen of Jersey City.....	Hackensack River	Hudson and Bergen	100.00
Jan. 20, 1919.....	The Mayor and Aldermen of Jersey City.....	Passaic River	Essex and Bergen	100.00
Mar. 17, 1919.....	The Mayor and Council of the City of Bayonne...	Hackensack River	Essex and Bergen	200.00
Total				\$875.00

SIXTY-YEAR LEASES.

Date.	To Whom Made.	Locality.	County.	Annual Rental First Twenty Years.	Capital Sum.
April 20, 1918.	J. Blackburn Miller	Barnegat Bay	Ocean	\$14.63	\$209.05
May 20, 1918.	K. I. du Pont de Nemours and Company	Delaware River	Salem	70.00	1,000.00
May 20, 1918.	Kleanor B. Ingersoll	Shark River	Monmouth	86.00	514.75
May 20, 1918.	Hogota Paper and Board Company	Hackensack River	Bergen	96.83	1,376.20
May 20, 1918.	Estate of August Bengel, deceased	Big Timber Creek	Camden	114.51	1,635.81
June 17, 1918.	Keyport Dry Dock Company	Raritan Bay	Monmouth	176.04	2,514.80
June 17, 1918.	West Jersey Sand and Supply Corporation	Big Timber Creek	Gloucester	47.19	674.19
July 15, 1918.	J. W. Paxson Company	Maurice River	Cumberland	19.00	271.44
July 15, 1918.	Hogota Paper and Board Company	Hackensack River	Bergen	117.73	1,681.90
July 15, 1918.	Camden Shipbuilding Company	er	Camden	670.74	9,582.00
Aug. 6, 1918.	C. F. Massey Company	er	Fasez	2,100.00	30,000.00
Aug. 6, 1918.	Ambursen Construction Company	River	Bergen	248.80	3,554.40
Aug. 6, 1918.	James Morgan, Jr., and Patrick J. Handbury	Delaware River	Camden	71.76	1,025.30
Aug. 6, 1918.	Henry Amato	Overpeck Creek	Bergen	10.96	158.64
Sept. 16, 1918.	Burlington Industrial Alcohol Company	Delaware River	Burlington	67.40	820.05
Sept. 16, 1918.	Charles Warner Company	Mantua Creek	Gloucester	81.50	450.00
Nov. 20, 1918.	H. J. Helms Company	Salem River	Salem	16.20	231.50
Nov. 20, 1918.	Wayner Glass Works	Salem River	Salem	174.55	2,493.60
Nov. 20, 1918.	Charles Warner Company	Mantua Creek	Gloucester	106.83	1,518.99
Dec. 16, 1918.	Inland Heights and Seaside Park Bridge Com- pany	Barnegat Bay	Ocean	3.50	50.00
Jan. 20, 1919.	H. J. Helms Company	Salem River	Salem	43.12	615.95
Jan. 20, 1919.	H. J. Helms Company	Fenwick Creek	Salem	47.26	673.13
Jan. 20, 1919.	Eastern Potash Corporation	Raritan River	Middlesex	420.00	6,000.00
Feb. 24, 1919.	Charles M. Sheldrake	Delaware Bay	Cumberland	20.48	292.50
Feb. 24, 1919.	Florence Pipe Foundry and Machine Company	Delaware River	Burlington	1,856.40	26,520.00
Mar. 17, 1919.	Boynton Lumber Company	Woodbridge Creek	Middlesex	52.50	750.00
Mar. 17, 1919.	Electric Company of New Jersey	Fenwick Creek	Salem	16.80	227.19
Mar. 17, 1919.	George F. Pettinos	Maurice River	Cumberland	112.70	1,609.94
April 21, 1919.	Salem Glass Works	Fenwick Creek	Salem	101.43	1,449.00
April 21, 1919.	J. W. Paxson Company	Bancocas Creek	Burlington	63.00	900.00
April 21, 1919.	Burlington Island Park Company	Delaware River	Burlington	26.34	376.85
May 19, 1919.	Franklin Snyder	Big Timber Creek	Gloucester	14.70	210.00
Total				.....	\$99,886.00

32 Sixty-year Leases.

BOARD OF COMMERCE AND NAVIGATION

LICENSES.				
Date.	To Whom Made.	Locality.	County.	Amount.
June 28, 1918.....	Intern Maner Water Company (annual; revocable)	Swimming River, Parker's Creek and cove of Shrewsbury River.....	Monmouth and Middlesex ..	\$40.00
July 10, 1918.....	Jersey Central Traction Company (annual; revocable)	Unnamed Creek, Hoff's Creek, Flat Creek, Chingarora Creek, Whale Creek and Monaskunk Creek.....	Monmouth and Middlesex ..	80.00
July 17, 1918.....	Electric Company of New Jersey and Electric Securities Company of New Jersey (revocable)...	Delaware River	Salem	25.00
July 17, 1918.....	The Mayor and Aldermen of Jersey City (revocable), bond filed, \$2,500	Passaic and Hackensack Rivers.....	Bergen, Essex and Hudson.	100.00
Nov. 6, 1918.....	E. I. du Pont de Nemours and Company.....	Delaware River and Henby Creek..	Salem	10.00
Dec. 14, 1918.....	Fairview Realty Company (annual; revocable)...	Newton Creek	Camden	10.00
Mar. 6, 1919.....	Delaware and Atlantic Telegraph and Telephone Company (annual; revocable)	Mantua Creek	Gloucester	10.00
Mar. 6, 1919.....	Anna E. Lalb (annual; revocable)	Big Timber Creek	Gloucester	5.00
Mar. 13, 1919.....	William G. Dunn and Cassie M. Dunn (annual; revocable)	Maurice River	Cumberland	5.00
Mar. 13, 1919.....	George W. Orr (annual; revocable)	Big Timber Creek	Gloucester	5.00
Mar. 18, 1919.....	Joseph Doherty (annual; revocable)	Big Timber Creek	Gloucester	5.00
Mar. 18, 1919.....	Leopold Stanton (annual; revocable)	Big Timber Creek	Gloucester	5.00
Mar. 28, 1919.....	Martin Fries (annual; revocable)	Big Timber Creek	Gloucester	5.00
Mar. 29, 1919.....	John Wilbert Plum (annual; revocable)	Big Timber Creek	Gloucester	5.00
April 7, 1919.....	Henrietta L. Kirk (annual; revocable)	Big Timber Creek	Gloucester	5.00
April 7, 1919.....	Henrietta L. Kirk (annual; revocable)	Big Timber Creek	Gloucester	5.00
April 14, 1919.....	Carolina M. Stocks (annual; revocable)	Big Timber Creek	Gloucester	5.00
April 14, 1919.....	Josephine Stock (annual; revocable)	Big Timber Creek	Gloucester	5.00
April 23, 1919.....	Georgianna Conwell (annual; revocable)	Big Timber Creek	Gloucester	5.00
April 25, 1919.....	Noreg Realty Company (annual; revocable)	Little Timber Creek	Camden	5.00
April 29, 1919.....	Harry W. Pettit (annual; revocable)	Big Timber Creek	Gloucester	70.00
May 29, 1919.....	Public Service Electric Company (revocable)	Rahway River	Union	25.00
June 11, 1919.....	The Undercliff Terminal and Warehouse Company (annual; revocable)	Hudson River	Bergen	94.71
June 13, 1919.....	William Curry (annual; revocable)	Big Timber Creek	Gloucester	5.00
24 Licenses.		Total		\$524.71

APPENDIX "B."

46 Boats Licensed, at	\$10.00	\$460.00
2 Boats Licensed, at	21.25	42.50
1 Boat Licensed, at	17.50	17.50
1 Boat Licensed, at'	2.00	2.00
345 Boats Registered, at	1.00	345.00
118 Boats Registered, at	1.25	147.50
122 Operators Licensed, at	1.00	122.00
6 Masters and Engineers Licensed, Original, at	5.00	30.00
42 Masters and Engineers Licensed, Original, at	1.00	42.00
15 Masters and Engineers Licensed, Renewals, at	3.00	45.00
4 Masters, Original, at	5.00	20.00
1 Engineer, Renewal, at	3.00	3.00
14 Fines .....	....	329.00
3 Penalties .....	....	15.00
	<hr/>	<hr/>
Total .....	....	\$1,620.50

Document No. 56

ANNUAL REPORT

OF THE

**Department of Conservation
and Development**

FOR THE

Year Ending June 30th, 1918

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Letter of Transmittal.

To His Excellency, Walter E. Edge, Governor.

Sir:—I have the honor to submit for your information, and for transmittal to the Legislature as required by law, the annual report of the Department of Conservation and Development for the fiscal year ending June 30th, 1918. It includes reports by the Board, the State Geologist, the State Forester, and the State Firewarden.

By direction of the Board of Conservation and Development.

Very respectfully yours,

ALFRED GASKILL,

Director.

State House, September 17th, 1918.

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The Department of Conservation and Development.

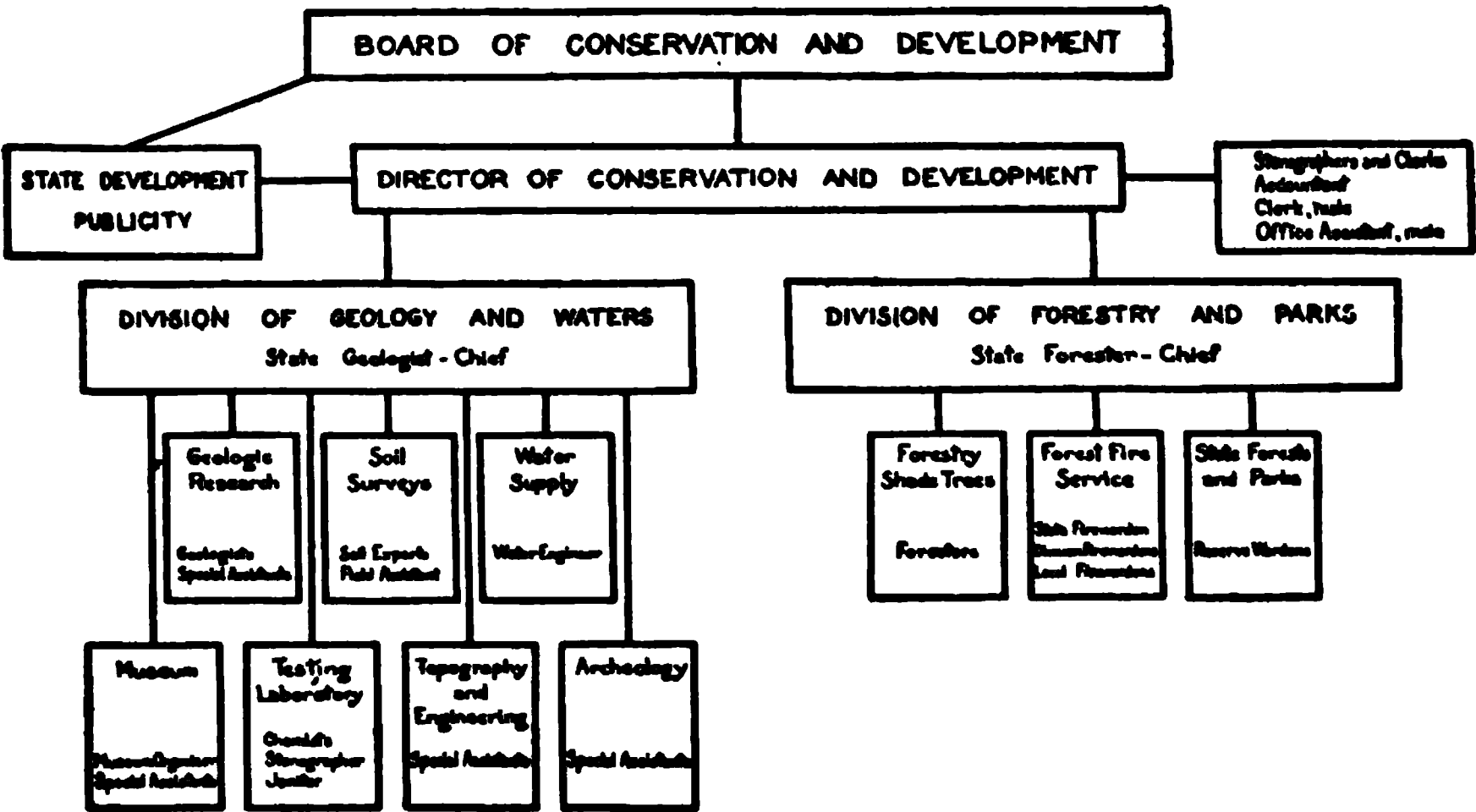
OFFICE, STATE HOUSE ANNEX, TRENTON.

The Board of Conservation and Development.

HENRY CROFUT WHITE, *President*,North Plainfield
PERCIVAL CHRYSTIE,High Bridge
JOHN L. KUSER,Bordentown
SIMON P. NORTHRUP,Newark
STEPHEN PFEIL,Camden
ISAAC F. RICHEY,Trenton
GEORGE A. STEELE,Eatontown
WILLIAM E. TUTTLE, JR.,Westfield

ALFRED GASKILL, Princeton,*State Forester and Director*
HENRY B. KÜMMEL, Trenton,*State Geologist*
CHARLES P. WILBER, Trenton,*State Firewarden*
M. W. TWITCHELL, Trenton,*Assistant State Geologist*
H. T. CRITCHLOW, Trenton,*Water Engineer*
J. VOLNEY LEWIS, New Brunswick,*Consulting Geologist*
W. M. BAKER, Trenton,*Assistant Forester*
HELEN C. PERRY, Trenton,*Museum Curator*
R. B. GAGE, Trenton,*Chemical Engineer*
C. C. ENGLE, New Brunswick,*Soil Classifier*
WM. LINDSAY, Trenton,*Assistant State Firewarden*
JOS. E. ABBOTT, Vineland,*Division Firewarden*
F. C. TORREY, Lakehurst,*Division Firewarden*
R. E. THOMPSON, Morris Plains,*Division Firewarden*

DEPARTMENT OF CONSERVATION AND DEVELOPMENT



Report of the Board of Conservation and Development.

The thirtieth day of June having been adopted by the Legislature as the termination of the official year, the following report covers the period between November 1st, 1917, the date of the last report, and June 30th, 1918.

CHANGES IN BOARD MEMBERSHIP.

Changes in the Board's membership have been as follows: Mr. Nelson B. Gaskill, having resigned on May 9th to accept a commission in the United States army, Mr. Isaac F. Richey, of Trenton, was appointed his successor. Messrs. Edward S. Savage and Charles L. Pack, whose terms expired July 1, were respectively succeeded by Mr. William E. Tuttle, Jr., of Westfield, and Mr. John L. Kuser, of Bordentown.

Mr. Henry Crofut White was elected President for the year beginning July 1.

WAR ACTIVITIES.

The past year, despite wholly inadequate appropriations, increased expense in every line of activity, and the almost insuperable difficulties occasioned by the great war, has demonstrated, as never before, the value to the State of a department charged broadly with the power and duty of investigating and conducting any project of State development not specifically committed elsewhere. In the national emergency, the Board has not hesitated to construe and exercise such power and duty liberally, with the knowledge that no mere adherence to routine, however efficient, would, or should, be accepted as sufficient, but that its part in the State's response to the Government's call could only be performed by constructive thought and effort.

As must always be the case, because of the Board's peculiar position, much of its work has been suggestive and co-operative. Not by neglect of any essential detail of the Department's activities; rather by redoubled thought, determination, and effort on the part of the whole organization, these have been exercised with due regard for the needs of the State and nation alike and in co-operation with the Federal administration.

Food production now having been well organized under established agencies, the following subjects were some of those receiving particular attention.

In forestry, serious effort has been made to locate practically available lumber supplies for the Government.

An active wood fuel campaign has been organized and conducted, and measures taken to provide such fuel, in co-operation with the State Fuel Administration, with important results apparent.

In response to the Government's call for black walnut and white ash considerable supplies of each have been located.

A State-wide census of lumber resources is about to be commenced.

The exhibition space and cabin on the Trenton Fair grounds which have been used for several years to exhibit Departmental activities, especially in forestry, will be occupied in 1918 by the Red Cross.

In geology, the State's already noted maps have, by constant labor, been kept up to date for the use, and with the expressed approbation of the military and industrial authorities.

Assistance in the search for war minerals and mineral fertilizers has been repeatedly sought and given.

In the location of the several encampments and cantonments, the Government has asked and received frequent advice and information as to potable water supplies. Moreover, at the Department's suggestion, Chapter 137, Laws of 1918, was enacted, granting to the Federal Government during the period of the war for any military encampment free use of any source of potable water which does not interfere with the needs of an established community.

An arrangement has been made with the Federal Government by which the Water Engineer will undertake a study of the inter-connection of water and steam power plants in this and neighboring States for the purpose of conserving coal.

MOSQUITO CONTROL.

Whether for military advantage, the health of our civil population or the future industrial and financial development of the State, the Board believes and takes this occasion to reassert that no subject within its own, or perhaps any other jurisdiction, more greatly merits consideration, effort, or *sufficient* appropriations than the extermination of the mosquito.

Public interest and public demand are increasing in practically every section, as is the belief, both scientific and popular, based upon accomplishment, that the adopted plans are thoroughly practical.

Late in the winter, the Atlantic City Chamber of Commerce took up actively the recommendation of the Director of this Department and inaugurated a campaign for immediate State control. That is now under way. Early in the spring the executives of several shipyards and munitions plants became greatly concerned for the health and comfort of the workers, and, with State officials, considered plans for extensive control. The problem appears to involve only a question of money, and money in a very moderate amount, considering the benefits to be secured. The practical freeing from the mosquito pest of large portions of Bergen, Essex, Hudson, Union, Middlesex, Monmouth, Ocean, Atlantic and Cape May counties justifies the assertion that our whole area can be swept clear.

The Department continues to urge an appropriation by the State of \$750,000, to be available in annual installments of \$150,000 each, with which sum, in addition to what the counties are prepared to spend, it is confidently believed that the salt-marsh mosquito can be practically driven from New Jersey within five years. The labor problem should and can be met by detailing prisoners and reformatory inmates to the work. Continued study of the benefits to be derived from salt-marsh mosquito control

indicates that the estimate that the ratables will be increased by at least \$500,000,000 within 20 years is too low, rather than too high, since many enterprises—industrial, agricultural, social and recreational, wait upon the elimination of the insects.

In the face of such facts, a legislative policy which, despite every effort of the Department and of many county and important individual interests, results in an appropriation of but \$10,000, cannot but be viewed with regret and concern.

UNDEVELOPED LANDS.

The special report on the undeveloped lands of the State, submitted to the Governor and published with the report of the Department for 1917, has aroused much interest and caused many inquiries.

New Jersey's great advantages, outside the metropolitan and coast section, have been so studiously ignored that few, even of our own people, know anything about them.

Though the State is one-fourth smaller than Belgium, and its population only two thirds as dense, the two are comparable in their diversity of resources. In their development, the contrast is significant. Belgian soil is highly cultivated, there is little waste land. With that, and a moderate store of minerals, as a basis, her industries have multiplied, her resorts and social life have been established, and a greater population, per area unit, is supported than in any other European state except one.

All this and more is possible here. We have the best location in the United States. Our soil, climate, and natural advantages are unsurpassed. The facts that our industries have met the demand for war supplies, that our waterfronts are carrying more shipbuilding and shipping than those of any other State, that our territory has been found fit for great munitions plants, military and naval encampments, and a vast number of new industrial enterprises, are proof of our attractions. They are further proof to any thoughtful mind of the need of balancing them with proper agricultural development in the regions suitable therefor. In the face of these things, the people of New Jersey are under obligation to realize their heritage and to redeem it.

LAND REGISTRY.

As a means of making effective the effort to locate new citizens the State needs an organization which shall collect and distribute definite information concerning lands of every kind available for occupancy. Other States with far less resources than our own do this and accomplish much. The Department has repeatedly tried to secure an appropriation for the purpose, but without success. For no more than \$5,000 a year very important results can be secured. From this point of view the State is a business, and demands business facilities and advertisement.

FORESTRY.

The development of the State along the lines above indicated calls attention to the fact that we have too much forest. Our effort, therefore, continues toward removing, for agriculture or other purposes, some of the forests that occupy land fit for a higher use, and at the same time toward developing the remaining forests so that they shall be more productive. In other words, we need fewer but better forests. This effort appears to be upon the point of receiving considerable support through the desire of the Federal Government to be assured of the necessary lumber supplies near the points of consumption. New Jersey has been almost criminally neglectful of her opportunities in the way of producing from her own land the lumber that her industries need, instead of importing it so largely from other regions. The means to this end have been frequently stated: *First*, to control forest fires; and, *second*, to assist the owners of the forests to make them productive and profitable.

State forests.—The 16,178 acres of forest land owned by the State is being added to as opportunity arises. These seven tracts (see pp. 67, 68) serve the double purpose of providing demonstrations in practical forestry, and confirming the State's determination to make the most of our forest resources. For neither of these objects are great areas required. It is far wiser to leave most of our forests in private control and to make it worth while for the owner to care for and develop them.

Shade trees.—In arboriculture, or shade tree work, the State at large is more keenly interested than ever. Shade tree commissions are increasing. The care of trees under private control is more widespread. Late in the spring the Forester submitted to the State Highway Department a plan by which the highways outside of municipalities could be provided with shade, and the Freeholders of Bergen County have already taken preliminary steps toward the same end.

Forest fires.—The forest fire service continues to cope with the traditional fire evil under very serious shortage of money, yet with fair success. The time has arrived when this organization should be materially strengthened so that property values represented by growing forests shall have the security to which they are entitled. The recommendations of the State Firewarden in this connection (see p. 85) are endorsed by the Board. The number of fires and the losses suffered cover but eight months, and therefore are not comparable with those published annually heretofore, but they show about the usual losses. These figures hereafter will be reported for each *calendar* year, since that period better represents conditions than the fiscal year.

KITTATINNY FOREST PARK.

After having carefully considered for a year the recommendation made by the State Forester, the Board is convinced that the creation of a great forest park on the Kittatinny Mountain, in Sussex and Warren counties, is a project of inestimable worth, and urges that provision be made for the gradual acquisition of the property. (See map.)

The necessity for extensive and varied playgrounds for all classes of people is generally admitted. One of New Jersey's greatest resources is her coast resorts, and to other hosts the woods and mountains are a necessity. Numbers of our own citizens seek their recreation in the hill country of New York, Massachusetts, Pennsylvania and the far West, entirely unconscious of the fact that within our own borders lies a forested mountain region of wonderful attraction.



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Kittatinny Mountain extends from the Delaware Water Gap to the New York line—about 36 miles—and attains an elevation of 1,800 feet. It is wild and rough, completely forested and practically uninhabited, yet is within three hours by train or automobile of Jersey City or Newark. The region is in every way adaptable for a public playground. Close to the foot of the mountain, on the southeast, is a chain of lakes to which considerable numbers of people are now attracted, but which is capable of providing recreation for many times the number. On the northwest is the Delaware valley. Within the region are innumerable trout streams, springs of clear water, and opportunities for camping. (See figs. 2-6) The whole country is easily reached by common roads. By the construction of improved highways on each side of the main ridge every part would become readily accessible.

Another strong reason for the establishment of this State playground rests in the fact that it would attract to the adjacent farm lands and villages a summer population which would tend to overcome the present movement away from the territory, and would build up property values to the great advantage of the communities.

The Federal Government is creating and advertising widely a system of National parks in the far West which now includes seventeen units and over six million acres. But all those are so far away that few can afford the time or the money to visit them. And the State is supporting the Palisades Inter-State Park, though that, after all, is of less direct value to the people of New Jersey than to the people of New York.

This proposition is advanced, not as against the Hudson valley effort, but rather as a complement to it. In our view, the State needs a large area of wild land such as this to which people can resort for a few days or weeks.

The property needs no embellishment, for in the woods, the streams, the waterfalls and mountain outlooks nature has provided the best. Practical roads, not expensive highways; trails to and along the mountain crest; rough shelter and camp sites are all that need be provided.

Seventy-five hundred acres, out of the forty thousand that it may be ultimately advisable to own, are now in State possession and have been partly developed. (See p. 67.) It is estimated that 30,000 acres of land can be acquired for \$250,000. If \$25,000 a year are devoted to purchase, the object can be accomplished rapidly enough. The maintenance charge for the whole area need not exceed \$10,000 a year. Ultimately the charge can be completely covered from the income derived from the forests.

WASHINGTON CROSSING PARK.

Proposals in this connection made to the Legislature last winter aroused interest and discussion, at least, and it is now likely that upon return to normal conditions, if not before, provision will be made for a suitable memorial at this historic point. Several years ago the Washington Crossing Park Commission adopted an ambitious plan which has been urged by local interests more or less vigorously from time to time without promise of success. Other sections of the State manifest slight interest. The Department deems the acquisition and improvement of the old ferry house and land immediately about it indispensable to the project. With that accomplished, the next requirement is money for a memorial. It is for the Legislature to decide whether we proceed handsomely, acquiring for park purposes the area indicated on the Commission plan, or, following a modest suggestion, sell the land we now own in the neighborhood and with the proceeds establish a memorial. There will be a memorial eventually and it should stand where the crossing was effected, not merely in the vicinity. Providing and maintaining a large park adjacent thereto as part of the enterprise is a task which the Department will assume most cheerfully if funds are voted by the people's representatives. Maintenance alone would involve not less than \$10,000 a year. An initial outlay of about \$250,000 is required for land and memorial suggested by the Commission plan mentioned. Attention is being given all suggestions of co-operation by the Government of the United States and by the Commonwealth of Pennsylvania, as a favorable step by either is certain to bring prompt response in New

Figs. 2-6. Good playgrounds—Stokes State Forest.



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Jersey. In that direction we see most attractive possibilities of accomplishment on a large scale, yet, in our judgment, it is unwise to leave the project indefinitely awaiting outside action. The Department proposes to make every effort in behalf of early and suitable marking of that location on the east bank of the Delaware River where General Washington landed his soldiers on that memorable night.

WATER RESOURCES.

Excess diversion tax.—Under the operation of Chapter 252, Laws of 1907, the Board certified to the State Comptroller the sum of \$20,470.89 as due the State for water diverted during 1917 in excess of the statutory free allowance. Of this amount \$11,182.82 remains unpaid.

In an action brought by the East Jersey Water Company the Department's certification of the tax was upheld by the Supreme Court and the sum due has been paid. Upon the basis of that decision, and the Department's recommendation, the Comptroller has requested the Attorney-General to bring suit against all the cities and water companies which have heretofore refused to pay any excess diversion charges. In some instances this refusal goes back several years and the successful outcome of the suits will result in the collection of upwards of \$51,000. In this matter the Board has taken the position that the law should be impartially enforced and that all amounts legally certified, either by it or by its predecessor, should be paid.

New diversions, dams, etc.—During the period covered by this report the Board passed upon five applications to divert water and two plans for dams.

Its engineer has investigated the development of water-powers along Musconetcong River, the beginning of a State-wide study of water-powers and their utilization.

Apparatus has been purchased and arrangements are being made for the accurate determination of the amount of water diverted and the pump slippage of water plants not equipped with accurate meters.

Its studies of the distribution and occurrence of underground water-supplies have been continued and advice given regarding their utilization.

A study of the economy of water metering is under way.

WHARTON TRACT.

The Department conceives one of its most important duties to be the comprehensive examination, and, so far as its jurisdiction extends, regulation and development of the State's potable water supplies.

Increasing population means increased demand with decreased available sources and supply. Industrial plants not only require, but are dependent upon a sufficiency that is running into amounts hitherto unimagined, or at least unanticipated by any proportional scientific provision. Already the cities of the northern portion of the State, as well as some of the smaller communities, have had practical demonstration of present limitations, and feel grave concern for the future. Industrial development has been stayed in some instances and its progress, especially about New York and Raritan Bays, feared for by those interested therein.

In South Jersey, on the other hand, both surface and underground supplies far exceed any local needs, either present or likely to develop. One of the largest tracts available as a source is that owned by the Wharton Estate. The Board, as the result of a very limited examination, made three years ago, at the request of Governor Fielder, reported adversely to the State's purchase of this tract, at the price then named. This tract, however, appears to have undeniable advantages as the source of a great public supply of pure water, and the Board cannot too strongly emphasize the wisdom of an adequate investigation to determine definitely its precise value; the feasibility and cost of water transportation therefrom; its advantages or disadvantages as compared with other possible sources; and other data sufficient to permit an authoritative and definite determination of so important a question.

The cost of such investigation will not probably exceed ten thousand dollars and in the opinion of the Board an appropriation should be made therefor at the earliest opportunity.

STATE MUSEUM.

That the Board has not overestimated the popularity of the State Museum and its educational value is shown by the fact that 20,515 persons visited it during the eight months covered by this report. Of these 3,615 were school children, in 149 classes.

The preparation of loan exhibits, particularly those representing steps in the manufacture of articles in common use, has continued, and the demand from schools indicates that this phase of the Museum's work is highly appreciated by teachers of all grades.

The space available in the State House, both for display and for work rooms, is wholly inadequate if the Museum is to develop along the lines contemplated; and small as the space is, the growing demand for office room threatens curtailment. If this shall eventuate it probably will be necessary to close the Museum to the public and restrict its work to circulating exhibits, a probability which has already aroused strenuous protest by the leading educational institutions and authorities. A separate Museum building, or larger quarters in a new wing of the State House, with a separate entrance from the street or park, is imperatively needed.

In March the Board granted a six months' leave of absence, without pay, to Miss Perry, the Curator, to permit her to engage in war work in France.

TESTING LABORATORY.

The new laboratory was taken over from the contractor near the close of the year, although occupied earlier. A portion of the equipment has been installed, so that the work demanded by the Highway Department could be done. In the interest of economy much of the installation work has been performed by members of the Department.

SHARK RIVER INLET IMPROVEMENT.

The channel at Shark River continues to maintain itself between the concrete jetties, although it varies in position and depth with the shifting of sand-bars under varying winds. Removal of the wooden piles of the falsework and pouring concrete for a small portion of the cap of the north jetty are all that remain to be accomplished.

SOIL SURVEY.

The study and mapping of our soils, carried on for several years by the Department in co-operation with the United States Bureau of Soils, was continued, most of the field work being in Atlantic and Burlington counties. About the middle of June, the field party was transferred to Morris county, where, during the hot months, work can be carried on with greater expedition and comfort than in the mosquito-infested areas in the south. The importance of this work and the results obtained are set forth in the report of the State Geologist (p. 32).

EMPLOYMENT OF INSTITUTIONAL INMATES.

The policy of working prison and institutional inmates, according to their ability, upon the roads, and other public enterprises promises to be successful. We recommend again that some of these wards of the State be made available for the improvement of the State forests; for opening and maintaining fire lines; and especially for the urgent work of ditching the mosquito marshes.

PUBLICATIONS.

In addition to the annual administrative report for 1917, the following special publications have been issued:

Wood Fuel. A 16-page bulletin, illustrated, showing the State's firewood resources and how to utilize them. A second edition is now on the press.

A Shade Tree Guide. A 22-page bulletin, illustrated, giving specific advice on the care of shade trees.

Archæology of Warren and Hunterdon Counties. (Bulletin 18, Geologic Series.) An 88-page bulletin giving location and description of Indian habitations.

The Quaternary Formations of Southern New Jersey. (Volume III of the Final Reports of the State Geologist.) A report of 218 pages, illustrated, giving the results of an exhaustive study of the southern portion of the State.

Topographic Atlas Sheet No. 35, on a scale of 1 inch = 1 mile. Revised edition.

Morristown Topographic Atlas Sheet, on a scale of 1 inch = 2,000 feet. Revised edition.

Geologic Map of New Jersey. Scale, 1 inch = 4 miles. New edition.

Road Map of New Jersey. Scale, 1 inch = 4 miles. Revised edition.

County and Municipality Map. Scale, 1 inch = 4 miles. A revised edition of this map was in the hands of the engraver at the close of the year.

ADVICE AND INFORMATION FREE.

The policy of the Department has long been, and still is, to make the knowledge which it has accumulated freely available to the public. Only upon the ground that our studies and investigations are for the education and advantage of all can the use of public funds for these purposes be justified.

Correspondence is invited; information is given by letter or in printed reports; only in cases where an inquiry involves special field or laboratory work, which it is advisable to undertake, will any charge be made.

AUXILIARY COMMITTEE.

Because of the war's demand upon the time of most men, the Board has deemed it inadvisable to call upon the Auxiliary Committee. Such a body of experienced, public-spirited citizens will be of great value in the near future provided, of course, appropriations shall render it possible to carry out the recommendations that the committee undoubtedly will be prepared to make.

DETAILED REPORTS.

The activities of the organized branches of the Department are covered by the reports of the State Geologist, the State Forester and the State Firewarden, submitted herewith.

THE OUTLOOK.

The Department has been considerably handicapped by the withdrawal of several of its members to engage in war work, and the necessity of training their successors, or the inability to find such successors, but far beyond this, its activities have been hampered at every turn for want of funds. It was necessary to make a general advance in salaries to meet present living conditions; unfortunately the Legislature did not see fit to increase the appropriation to cover those advances; the result is that the Department is even more restricted than it has been.

The record of the Department's first three years of effort is closed with an expression of regret that means have not been provided to develop the many latent resources of New Jersey. Few States are so wonderfully endowed; few have so persistently neglected great opportunities.

THE BOARD OF CONSERVATION AND DEVELOPMENT,

By ALFRED GASKILL,
Director.

Financial Statement.

FOR THE FISCAL YEAR ENDING JUNE 30TH, 1918.

RECEIPTS.

Appropriation for Maintenance (8 mos.), ¹	\$42,000 00	
Transferred to Township Fire Bills,	1,200 00	
		<hr/> \$40,800 00
Appropriation for Township Fire Bills,	\$5,000 00	
Transferred from Maintenance,	1,200 00	
		<hr/> 6,200 00

DISBURSEMENTS.

Administration—		\$47,000 00
Salaries—Clerical and Emergency,	\$3,725 92	
Traveling expenses—Board members,	103 46	
Stationery and blanks,	1,006 26	
Postage,	1,159 71	
Telegraph and telephone,	143 29	
Express and freight,	85 05	
Books, instruments and furniture,	674 12	
Incidental supplies,	159 22	
Insurance,	342 09	
Printing (not stationery and blanks),	518 75	
Division of Geology and Waters—		
Salaries—Technical Force,	13,490 50	
Traveling expenses—Technical Force,	1,032 45	
New maps,	749 00	
Laboratory apparatus, supplies, etc.,	373 84	
Museum supplies,	681 29	
Heat, light and power at Laboratory,	362 39	
Incidental supplies,	160 24	
Division of Forestry and Parks—		
Salaries,	11,303 18	
Traveling expenses—Foresters,	457 30	
Traveling expenses—Fire Service,	2,794 40	
Maintenance of State forests,	191 90	
Fire Service Equipment,	31 32	
Fire lookout tower,	350 00	
Incidental supplies,	133 10	
Forest tax lieu,	203 78	
Township fire bills,	5,395 56	
Held for fire bills outstanding,	804 44	
On requisition for outstanding bills,	307 69	
Lapsed to State Treasury,	169 75	
		<hr/> \$47,000 00

¹ Above statement includes bills paid to December 1, 1918, but incurred prior to June 30, 1918.

² Total appropriation for year was \$63,000, but change in the fiscal year reduced appropriation to proportionate amount for 8 months.

CONSERVATION AND DEVELOPMENT.

NEW TESTING LABORATORY.

Appropriated for building,	\$34,639 00	
Appropriated for equipment,	3,000 00	
Transferred from Road Department,	2,050 00	
	<hr/>	\$39,689 00
Expended to June 30, for equipment,	\$5,033 28	
Lapsed to State Treasury,	16 72	
Expended to June 30, for building,	27,008 43	
Contracts,	7,630 40	
Lapsed to State Treasury,	17	
	<hr/>	\$39,689 00

SHARK RIVER INLET IMPROVEMENT.

Appropriations, State and Total ,	\$114,000 00
Expended to June 30,	\$107,300 33
Reserved for rentals, etc.,	5,655 25
Lapsed to State Treasury,	1,044 42
	<hr/>
	\$114,000 00

CASH ACCOUNT.

RECEIPTS.

Balance on hand November 1, 1917,	\$180 09	
Sale of geological maps and reports,	825 80	
Fire penalties,	2,518 60	
Forests and parks,	209 00	
Miscellaneous,	58 21	
	<hr/>	\$3,791 70

DISBURSEMENTS.

Paid State Treasurer,	\$1,267 05	
Paid to Township Treasurers,	1,841 05	
Miscellaneous,	13 00	
On hand June 30, 1918—		
Due State Treasurer,	\$317 20	
Due Township Treasurers,	353 40	
	<hr/>	670 60
	<hr/>	\$3,791 70

Report of the State Geologist.

HENRY B. KÜMMEL.

ADMINISTRATION.

Scope of Report.—This report summarizes the activities of the Division of Geology and Waters for the eight months' period ending June 30th, 1918. The field season July to November is not included in this shortened fiscal year, and therefore the record of outdoor activities is briefer than in previous years.

Some scientific results of the work of the Division have been published as special reports and maps (see p. 24). The continued popularity and demand for the maps of the Department is evidenced by the following figures of sheets distributed: 1916, 5642; 1917, 5618; 1918 (8 mos.), 3509. There has been a great demand for these maps by military officers and others in connection with the numerous cantonments, camps and other military stations in New Jersey.

TOPOGRAPHY AND ENGINEERING.

Shark River Inlet Improvement.—In November the work of driving piles at the seaward end of the north jetty was completed, and casting the reinforced cement top was commenced. Before this could be completed, inclemency of weather and shortage of funds compelled cessation of the work. The plant was put in order for the winter and the crew, with the exception of the superintendent, discharged. An arrangement was made with the firm from whom the machinery was hired by which rent should not be paid during the months it was not in use.

It was expected that the adjudication of the claim for rental for the use of the contractor's plant would be settled shortly, and that a part of the money thus tied up would become available for completing the work. Contrary to expectations and promises, the decision had not been made at the close of the fiscal year (nor at the time of writing, September 1st). It has therefore been impossible to complete the capping as intended. The superintendent and one or two men have been engaged in removing the wooden piles of the falsework which obstructs the channel, and in cleaning up.

The delay in completing this work, due in considerable part to the slowness of litigation, is certainly exasperating, but beyond the power of the Department to remedy, restricted as it is by the limitations of its appropriation.

Resignation of C. C. Vermeule.—In May C. C. Vermeule, for many years consulting engineer and topographer to the Geological Survey, and later to the Department, was forced by pressure of his other interests to sever all connection with the Department. This step was a matter of deep regret, particularly to the State Geologist, because of his long association with Mr. Vermeule, whose integrity and ability as an engineer he held in high esteem.

Mr. Vermeule's connection with the Geological Survey began in 1879, when as assistant to Dr. Geo. H. Cook, then State Geologist, he was engaged in making the topographic map of the State. Placed in full charge of this work the following year, he pushed it energetically to completion in 1887, and supervised the engraving of the lithographic stones and the publication of the finished maps. Other results of the topographic survey were set forth by him in a volume of 435 pages entitled "Topography, Magnetism and Climate of New Jersey," he being the author of the first two topics. All subsequent revision and alteration of the topographic maps, made necessary by the marvelous development of the metropolitan sections of the State, have been under Mr. Vermeule's supervision.

On the completion of the topographic survey Mr. Vermeule opened an office in New York as consulting engineer, with the Geological Survey as one of his clients, a relationship which con-

tinued uninterrupted until his resignation. After the topographic survey, he commenced his studies of stream flow and the water resources of New Jersey—investigations which continued over many years and which, in importance, equal his topographic work.

These studies were made public in the report of the Survey entitled "Water Supply, Water Power, the Flow of Streams and Attendant Phenomena," published in 1894. Supplemental papers in several later Annual Reports of the State Geologist dealt with floods, particularly those of Passaic River.

Later Mr. Vermeule gave considerable attention to the study of forest conditions in New Jersey and the effect of forests on rain fall and stream flow, a considerable portion of the Report on Forests, 1899, having been written by him.

During the thirty-nine years of his connection with the Geological Survey and its successor, he was called upon for advice on diverse engineering subjects in addition to those enumerated above. Some of his papers on these matters were published in the Annual Reports of the State Geologist; others are in the files of the Department.

Revision of maps.—Atlas sheets 39 and 42, commonly known as the Municipality Map and the State Road Map, were revised during the year so as to bring them up to date. A new edition of the Road Map was printed and placed on sale. The engravers were at work on the Municipality Map when the year closed.

MINERAL STATISTICS.

As in previous years, the Department has co-operated with the United States Geological Survey in the collection of the statistics of mineral production during 1917. This work has been under the direction of Dr. M. W. Twitchell, who has prepared the summary tables given on pages 107 to 109. The total for the State amounted to \$45,516,478, an increase of \$5,080,816 over that for 1916.

SOIL SURVEY.

The differentiation of the soils and their mapping in accordance with the standards of the United States Bureau of Soils at Washington has proceeded without interruption except as imposed by climatic conditions. However, the cessation of field work during the winter gave opportunity for the compilation of field data, and the preparation of the maps necessary to the publication of the final report.

During November and part of December, field work was continued in South Jersey, in the Millville area, 204 square miles being mapped. The field party consisted of Messrs. A. L. Patrick and H. C. Smith, of the United States Bureau of Soils, and C. C. Engle and L. L. Lee, of the Department of Conservation and Development. About the first of December Messrs. Patrick and Smith were sent to other States, but field work was continued by the New Jersey men until the middle of the month, when inclement weather prevented. During the winter months Mr. Engle at the experiment station at New Brunswick, and Mr. Lee in the Trenton office, worked on their maps and reports.

The State's men commenced field work the third week in April in South Jersey, and after a few days spent in revision of several small tracts in the Millville area, the party began mapping the soils in the region covered by atlas sheets 32 and 33. This area lies chiefly in Burlington and Ocean counties east of a line from Mount Holly to Hammonton. It will be known as the Toms River area. It embraces approximately 1100 square miles, and two or more field seasons (spring and fall) will be necessary to complete the survey. Since the greater part of this tract lies within the so-called "pine" belt, and is undeveloped agriculturally, the careful classification and mapping of the soil will go far toward determining the proper values of this portion of the State. It is known, of course, that all the soils of this area are light and sandy and not so well suited for general farming as heavier soils. It is believed, however, that not all parts of this area are of the same value; that the soil of some parts is much better than of others, and that the soil survey will give definite and authoritative

information. If the survey does nothing more than furnish reliable information by which a check may be placed upon the fraudulent representations of speculative real estate dealers, it will be worth all its costs; for these undeveloped and comparatively unknown areas are the most subject to vicious misrepresentation, by which many persons are induced to purchase farms at what appear to be low prices, but in reality are exorbitant rates.

About the middle of June the State men were joined by Messrs. A. L. Patrick and E. B. Deeter, of the United States Bureau of Soils, and the party moved to northern New Jersey, a change made advisable by the difficulty of working in the mosquito-infested areas of the southern part of the State during the hotter months. One hundred and thirteen square miles had been mapped before the transfer was made.

The area to be mapped in North Jersey is that covered by atlas sheet 25, and probably the western part of sheet 26. It lies immediately east of the Belvidere area completed last year, and will be known as the Bernardsville area.

STATE MUSEUM.

The popularity of the State Museum as an agency of interest and instruction shows no signs of lessening. The attendance both of classes from schools and of adults has been well maintained. Special exhibits from time to time have added to the general interest. The influence of the Museum beyond the limits of Trenton is increasing. More use is being made of the loan collections as a greater variety of material has been prepared.

With more room for preparation, and more funds for material and workers, the usefulness of the Museum and its value as an adjunct to the educational system of the State can be much increased. War conditions have, however, compelled a curtailment rather than an expansion for the coming year in that less funds will be available. But this is not the worst feature of the present situation. The crowded condition of the State House and the necessity of providing office room for new departments has compelled the State House Commission to decide to trans-

form a part of the present Museum room into offices.¹ While this is in a measure a necessity, it is nevertheless fatal to the continuation of the activities of the Museum as a place of exhibition. The space remaining will be too small and crowded for the proper display and artistic arrangement of materials, particularly since it is necessary to use a part of the present space for a workroom. Unless a suitable building near the State House can be rented, or proper quarters provided in a new wing of the Capitol, the exhibition work of the Museum must inevitably cease, or at best be greatly curtailed. What this means can be better appreciated after a perusal of the following paragraphs in which Museum activities are stated at some length.

In March, Miss Perry, to whose energy and vision the success of the Museum was so largely due, requested and was granted leave of absence to engage in war work in France. The administrative officers were extremely loath to recommend, and the Board to grant, such a request because of their realization of the great value of Miss Perry's work in reorganizing and directing the Museum activities. It was recognized, however, that those same qualities which had made her work here so great a success fitted her admirably for the new work abroad, and the leave was granted. It is hoped that she will resume her duties with the Department during the coming year. In the meantime, Mrs. Kathryn B. Greywacz, Acting Curator, has carried on the work in an acceptable manner.

Permanent exhibits.—Some time has been spent in completing a number of the permanent exhibits which had been labeled and only temporarily arranged. A few new ones were given a permanent place in the Museum. A complete list of permanent exhibits follows.

Natural history.—Queer Fish, Food Fish, Bird Homes, How Birds Get Their Food, Common Birds of Trenton Classified According to Color, Ducks of New Jersey, Turtles and Snakes, Animals of New Jersey, Animals and Their Young, Poisonous and Edible Mushrooms of New Jersey.

Industries.—Wool, Silk, Dyeing of Silk, Flax, Cotton, How Pottery is Made, Belleek, Underglaze and Overglaze Decorations, Mosaic and Tile Pictures, Hollow Tile, Electrical Porcelain, Bricks, Sanitary Ware, Rubber, Zinc, Iron and Steel, Copper.

¹ This plan was later changed and the Museum left undisturbed.—H. B. K.

Geology.—Useful Minerals and Rocks, Minerals and Rocks of Trenton and Vicinity, Structural Features of Rocks, Fossils, Common Rocks, Common Rock-forming Minerals, Properties of Minerals, Road Materials, Building Stones, Clays of New Jersey, Minerals of New Jersey, Rocks of New Jersey.

Pictures.—Thirty of the one hundred original water-color sketches of New Jersey wild flowers, by Miss Caroline Fox, have been framed and hung in the Museum. These make a most pleasing frieze.

Special exhibits.—The schools of Trenton and the public have taken much interest in the special exhibits held at the Museum this year. Several of these were arranged to meet the desire for information along all lines relating to the war, such as the Red Cross and military exhibits, war posters, food conservation, and Camp Dix model. A complete list follows:

	<i>Attendance.</i>
November 1-15.	
Patriotic War Posters—	
Red Cross and Military Exhibit,	1586
December 10-January 15.	
School Lending Sets—	
Mushrooms,	1291
February 4-23.	
Pottery,	2156
March 15-30.	
Food Conservation,	1885
April 2-May 1.	
Tapestry—	
Wild Flower Sketches,	2043
May 6-June 7.	
Birds and Bird-houses,	3322
June 7-29.	
Camp Dix Model,	1729

Because of the interest shown by the schools and the public in the military and Red Cross exhibit, it was continued in connection with the patriotic war posters. The poster exhibit included forty of the best selected American patriotic posters and twenty or thirty war posters of England, France, Russia and Italy. These were lent by the Newark Museum Association, Newark, New Jersey.

The exhibition of school lending sets included the industrial process charts, Riker mounts, pictures, and lantern slides, prepared by the Museum for lending to schools throughout the State.

The mushroom exhibit consisted of fungi, including paintings, specimens, and descriptions of edible and poisonous mushrooms. The material was furnished largely by Edward B. Sterling and Edwin Fowler. Splendid water-color sketches were made for this exhibit by the Misses Anna and Alice Fowler and Caroline Fox.

The pottery exhibit included specimens of the clays found in New Jersey, showing their appearance when fired, various methods of testing them, and different processes of decoration; also a display of the clay products of the State; viz., pottery, belleek, china, mosaic and tile, sanitary ware, brick, crucibles, electrical supplies, and hollow tile. For the last three days of each week a pottery expert gave demonstrations of primitive pottery making, coiling, turning on the wheel, and casting in molds.

The exhibition of the work of the New Jersey State Commission for the Blind included basketry, hand-woven fabrics, knitted and crocheted articles, sewing and embroidery. Three days each week the blind themselves gave demonstrations of their handiwork. On the two Saturdays children from the Blind Babies' Home at Summit, New Jersey, built and furnished a playhouse. These demonstrations were very popular.

The Food Conservation exhibit, prepared with the assistance of the United States and New Jersey Food Administrations, the Russell Sage Foundation, the State Department of Agriculture, and the Home Economics Committee of the Contemporary Club of Trenton, included substitutes for wheat, meats, fats, and sugar; canned and dried fruits and vegetables; one hundred calories exhibit; posters and charts; and suggestions of practical ways of conserving food. Women from all sections of the city were invited to attend food lectures held at the Museum, and helpful literature was distributed by school children to the homes in which such practical suggestions would be of greatest value.

The tapestry exhibit included a tapestry loom, cartoons, and wall and furniture pieces, lent by the Edgewater Tapestry Looms, Edgewater, New Jersey. In connection with it, the one hun-

dred original water-color sketches of wild flowers, by Miss Caroline Fox, were shown.

The bird and bird-house exhibit included warblers of New Jersey, bird homes, how birds get their food, common birds of the State, game birds, rare birds, and twenty-five bird-houses made by the school boys of Trenton.

The Camp Dix model, which was lent by the Newark Museum Association of Newark, New Jersey, attracted much attention. This block model was exactly reproduced from the original plan of the camp and gave an accurate idea of the layout of the cantonment.

Local school work.—The schools of Trenton and vicinity have co-operated with the Museum in all of its work. Bulletins announcing current exhibits are sent to principals and museum representatives of public, parochial, and private schools, and many classes visit the Museum during school hours to study both the permanent and special displays. Girls in the domestic science classes of the Junior High School baked samples of war breads and cakes for the Food Conservation exhibit. The bird-houses exhibited were made by the boys in the manual-training classes of Trenton schools. The Museum planned to have children's hour every day from 4 to 5 o'clock, but, during the session of Legislature, no classes or groups of children were permitted to visit the Museum. Because of this restriction, children's hour was held only before and after the session of Legislature. Students from the State Normal School volunteered to tell stories about objects in the Museum, and to take the children on short hikes for nature study talks.

Loan collections.—The Museum's loan collections are continually multiplying. They include the industrial process charts, which illustrate the processes of manufacture of the leading industries of this country; Riker mounts of common moths and butterflies, and insects; cases each containing three fish; and colored mounted pictures of birds, animals, fish, insects, trees, flowers, fruits, and minerals. Ten mounted pictures and four exhibits, such as charts and Riker mounts, or one natural history case, may be ordered by any school in the State at one time, kept for one

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month, returned and exchanged for other material. Cases containing birds or small mammals are now being prepared and will be ready for circulation in September. Other industrial, forestry, and geologic sets are in the course of preparation. Following is an inventory of the loan collections ready for circulation:

Industrial process charts, 14 inches by 22 inches, with accompanying literature:

- 23 Silk. From the silk-worm egg to the finished cloth.
- 18 Wool. From the fleece to the finished cloth.
- 22 Cotton. From the cotton boll to thread and cloth.
- 20 Flax. From the flax plant to thread and cloth.
- 10 Textile fibres. Showing microscopic characteristics.
- 18 Textile weaves. Showing in diagram four common weaves.
- 14 Cereals. Wheat, barley and corn, and cereals made from them.
- 16 Wheat. Showing the manufacture of flour.
- 7 Corn products. Showing the uses of corn.
- 24 Chocolate and Cocoa. Its manufacture and uses.
- 1 Salt. Showing origin and uses.
- 12 Spices. Pictures and samples before and after grinding.
- 23 Cork. Its manufacture and uses.
- 11 Glass. Showing the manufacture of glass bottles.
- 22 Rubber. From the tree to the automobile tire.
- 13 Asbestos. Its manufacture and uses.
- 13 Paper. Showing the process of manufacture.
- 12 Linseed Oil, Paint and Varnish. Showing how they are made.
- 6 Shears. Showing how they are made.
- 6 Spoons. Showing how they are made.
- 6 Pins. The making of common and safety pins.
- 15 Pens. From the steel to the finished pen.
- 16 Pencils. Showing manufacture of pencil and rubber.

Total number of industrial charts—328.

Specimens in Riker mounts, 11 inches by 14 inches, or 7 inches by 11 inches:

- 12 Common Moths and Butterflies.
- 28 Common Insects.

Fish cases containing 3 fish,	6
Colored pictures, mounted, 11 inches by 14 inches,	1,000

Number of loan collections circulated January 1–June 30, 1918:

Industrial charts,	189
Booklets,	114
Riker mounts,	31
Fish cases,	2
Mounted pictures,	448

Lantern slides.—The Museum has nearly 4,000 lantern slides for circulation in the schools of the State. This summer, broken slides will be replaced by new ones, and where duplicate slides are needed they will be supplied. A set of about 250 slides relating to the present war will be added to the collection.

Number of orders for slides in the past 8 months, 93
 Number of slides circulated for the past 8 months, 3,053

Traveling exhibits.—A number of traveling exhibits have been prepared to lend to libraries, schools, and community centers throughout the State. These exhibits may be kept for two or three weeks and then sent on to another place.

The traveling Red Cross exhibit, which shows all the articles made by the Red Cross, with directions for making, was sent out March 1.

The one hundred water-color sketches of spring and fall wild flowers, autumn leaves, berries, etc., are ready for circulation. Twelve frames have been prepared, with a box for shipping, in which twelve selected pictures from the hundred sketches may be shown.

The traveling mushroom exhibit includes thirty small water-color studies of poisonous and edible mushrooms.

A small exhibit of military insignia and chevrons is in course of preparation and will be sent out as soon as it is completed.

Attendance.—The attendance at the Museum is shown in the following tabulation.

<i>Month.</i>	<i>Number of Classes.</i>	<i>Number of Pupils.</i>	<i>Children's Hour.</i>	<i>Total Attendance.</i>
November,	31	535	...	2317
December,	2	57	423	1570
January,	3	42	...	1722
February,	37	1107	...	3703
March,	30	789	...	3899
April,	10	145	427	2031
May,	27	731	418	3128
June,	9	2145
	<hr/> 149	<hr/> 3615	<hr/> 1268	<hr/> 20515

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The average attendance has been as follows :

Per day,	100
Per week,	595
Per month,	2,564
Total attendance for the 8 months' period,	20,515

The attendance would have been still greater if classes and groups of children had been permitted to visit the Museum during the whole year.

IRON MINING.

Great activity has characterized the iron mines of New Jersey. The Wharton properties, purchased by the J. Leonard Replogle interests, are being rehabilitated after a long period of idleness, and bid fair to be large producers during the coming year. This includes the unwatering of the Hibernia mines, operation of the furnaces at Wharton, and the extensive development of the Scrub Oak mine, west of Wharton and overlooking Succasunna Plains.

Scrub Oak Mine.—A broad area of strong magnetic attraction on the west slope of the hill above the plains at Kenvil was opened before 1864 by a series of shafts in a line about 1,000 feet long. The ore was so lean, however, that operations lasted only a short time. It was worked again in 1880 and 1881, about 2,500 tons of ore being then mined. There was some prospecting in 1905 and a new shaft was started, but nothing of importance resulted. In the spring of 1917 the new owners of the Wharton Steel Company put down three holes about 600–700 feet northeast of the old open cut, and two others about 950 feet further northeast. These disclosed a large body of lean ore at depths of about 230 feet and 400 feet with a probable minimum length of about 1,600 feet. Analyses of the ore showed metallic iron 40 to 43 per cent, and phosphorus 0.026 to 0.078—a Bessemer ore.

On the strength of this showing a large investment has been made in developing this ore body and in erecting buildings for crushing, sorting and concentrating the ore. A four-compartment shaft has been sunk in the foot wall 100 feet from the ore

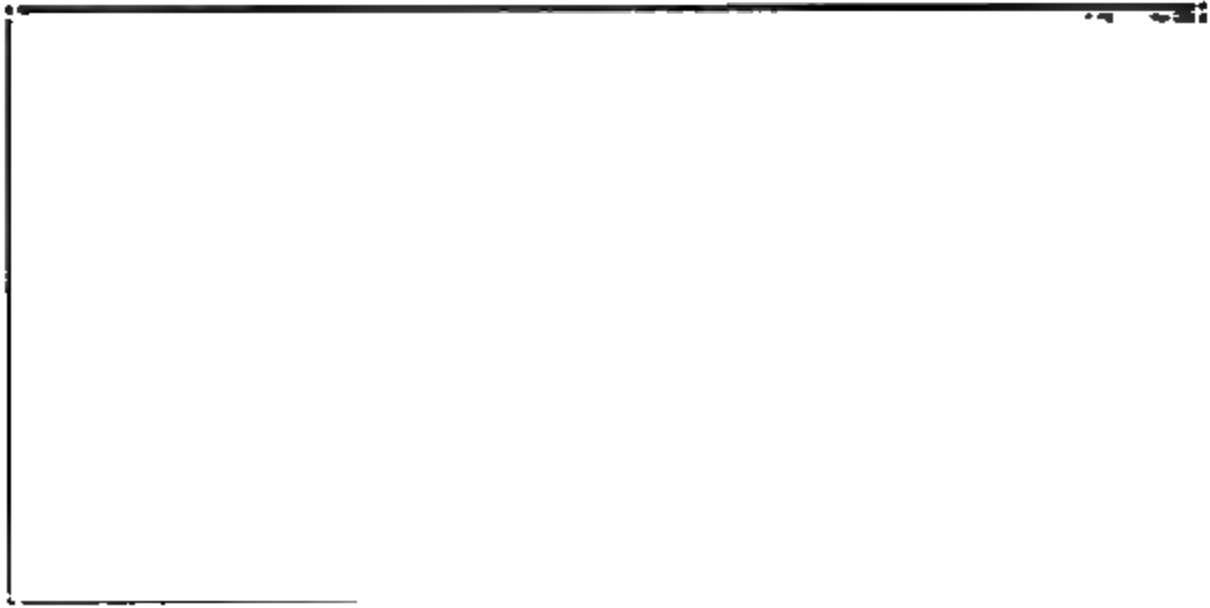


Fig. 7. General view of the Scrub Oak Mine.

Fig. 8. Head frame and crushing mill—Scrub Oak Mine.

Fig. 9. Concentrating mill—Scrub Oak Mine.

with an eastward dip of 55 degrees. At 233 feet there is a cross cut to the ore, and a level run in the ore to the southwest. Simultaneously, drifting was commenced from the old workings to connect with this level. This development work has opened up a body of ore through a distance of 1,100 feet 30 feet or more in width. On August 1st, 1918, the headings were only 190 feet apart, and connection was made before September 1st.

The hoisting, crushing, separating and concentrating plant (figs. 7, 8, 9) will have a capacity of 100 tons per hour, so that this mine if operated at full capacity will be a large producer.

The ore body is a banded magnetite gneiss, the magnetite appearing in grains, pencil-like lines and thin sheets. Where richest there are thicker sheets or masses, some of which show a buck-shot structure. It contains 40-43 per cent of metallic iron, which by concentration will be raised to 60-63 per cent, and 0.05 or less of phosphorus.

In connection with the expenditure of large sums of money by progressive iron-mining men in this great development, it is interesting to remember that operations in this same ore body had several times been abandoned as unprofitable. Changing conditions in the iron industry, the development of better mining methods, the perfection of magnetic concentration and large tonnage capacity have made it possible to transform an abandoned mining property into a large producer. This is only an example of what will unquestionably happen to others of the abandoned iron properties of this State.

GREENSAND MARL.

In his report for 1917 the State Geologist called attention to the importance of the glauconite or greensand marl deposits of New Jersey as a source of potash. At that time marl was being dug near Marlton by the Atlantic Potash Company and shipped to a plant near Easton, Pa., for treatment and recovery of the potash. Shipments have continued during the period covered by this report, but have been more or less retarded by abnormal conditions. During the spring of 1918 a plant for the recovery

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of potash from the greensand marl was under construction near Medford, but at the close of the fiscal year had not been put into operation. It is being constructed under the direction of the E. G. Spilsbury Engineering Company, of New York, and when completed will have a capacity of 100 tons per day.

PROSPECTING FOR OIL.

Nothing of importance has been done in prospecting for oil in New Jersey during the past eight months. At Millville, where there was so much excitement over the reputed discovery in October, 1916, all efforts have been abandoned. At Beaver Creek, near Newport, Cumberland County, the drilling derrick and machinery are still on the ground, but in April the operator, after spending several months in the early part of the year in endeavoring to remove tools and a broken pipe, at a depth of about 800 feet, stopped work and no information can now be obtained as to future plans. The attempt to find oil in the red shale near Belle Mead, Somerset County, was given up in December, 1917, at a depth of 2,100 feet, no trace of oil having been discovered, and the equipment being sold at sheriff's sale for the benefit of creditors.

These failures only emphasize the warning repeatedly given by this Department that there are no facts known pointing unequivocally to the occurrence of oil in New Jersey, and there are good reasons for doubting its existence in commercial quantities.

CLAY INVESTIGATIONS.

The intensive study of the clay deposits of the Woodbridge district commenced by this Department and the Department of Ceramics at Rutgers College has been continued. Since the investigation consists chiefly of laboratory tests of various sorts, the bulk of the work is done by the Department of Ceramics, and questions regarding the quality of clay and its adaptability are referred to that Department for reply, the State Geologist

dealing chiefly with questions of geographic occurrence and field relations.

The war has completely stopped the importation of certain German clays extensively used in this country, particularly in graphite crucibles and lead pencils, and has also greatly reduced the amount of clay obtainable from other countries, such as English ball clay. Manufacturers have therefore been compelled to seek substitutes, and New Jersey as one of the chief clay-producing States has seen great activity in this industry. As a result of the investigations undertaken by these departments, it has been possible to find a successful New Jersey substitute for the German pencil clay. This was recommended to manufacturers and is now being largely used. A mixture of clays from the Woodbridge district was found which is giving good satisfaction in the manufacture of graphite crucibles, in place of the German Klingenberg clay formerly believed to be indispensable. Crucibles molded from New Jersey clays are being successfully used in the United States assay foundries, and although the amount of clay used is not proportionately large at present, it would appear that there is a promising future for this clay in the crucible industry.

The curtailment of building operations has materially reduced the quantity production of New Jersey terra-cotta and of the higher grades of structural clay products. Some factories have been compelled either to close their doors or turn to other lines of manufacture. The great demand from the metallurgical industries for fire brick and other refractory products has given the terra-cotta manufacturers an opportunity to adopt a new line of product with very little change in equipment. Our clay investigations have been of great value to these manufacturers in selecting high-grade clays for fire brick, since the terra-cotta clays cannot be used for this purpose.

High-grade kaolin is not found in New Jersey, but it is quite possible that some of our fire clays may be substituted to advantage for the English ball clay, and one such clay, recommended as a result of this series of tests, is being successfully used in the production of porcelain ware.

Not a few inquiries have been received from manufacturers in other States, and in some cases it has been possible to recommend clays for their specific needs. By this means the exportation of New Jersey clay to other States has been promoted.

GANISTER ROCK.

The term ganister rock or ganister is applied to a siliceous sandstone, or quartzite, containing a small amount of aluminous matter, with perhaps some iron oxide, which when ground can be molded and burned to make a highly refractory silica fire brick.

Attention is directed to a large deposit of rock suitable for this purpose located on the north side of Gravel Hill, Hunterdon County, $1\frac{1}{2}$ miles north of Holland Station on the Belvidere Branch of the Pennsylvania Railroad. The deposit was quarried for several years, the rock being crushed and conveyed by aerial tramway to the railroad and shipped mainly to iron foundries in the Lehigh Valley district, but has not been worked recently. So far as known it has not been used for silica brick, although laboratory tests indicate that it is admirably adapted for this purpose.

The rock is a very coarse conglomerate of light-colored to white quartzite pebbles and small boulders embedded in a matrix of similar but finer material. The pebbles and boulders are traversed in all directions by fracture planes so that they readily break into small pieces the size of hickory nuts or walnuts. The matrix is but slightly indurated, so that the rock can be readily dug and broken without blasting.

Chemical analysis¹ of an average sample of the finer portion gave the following result:

Si O ₂ ,	98.27
Fe ₂ O ₃ ,	0.19
Al ₂ O ₃ ,	1.30
Ca O,	trace
Mg O,	trace
Loss on ignition, .....	.24
	<hr/>
	100.00

¹ Analysis furnished by Jas. G. Vail, Philadelphia Quartz Company.

Brickettes molded from this material with 2 per cent CaO in the form of lime hydrate were tested under the direction of G. H. Brown, Director of the Department of Ceramics. He reports that their softening or fusion point corresponds to that of pyrometric cone 32 (approximately 3,218 degrees Fahrenheit), and that in this respect this material is fully equal to the silica brick made from Pennsylvania ganister.

The "Gravel Hill" ganister contains a small amount of iron oxide, which does not appear to affect the quality of the brick in any way, although it causes a somewhat speckled appearance when burned. The molding properties of the mixture of Gravel Hill ganister and the lime bond is excellent, the resulting brick being heavy and dense.

WORK FOR OTHER STATE DEPARTMENTS.

Close co-operation has been maintained with the State Highway Commission. In addition to the work done in the testing laboratory (see below), the State Geologist on several occasions, at the request of the Highway Engineer, made field examinations along the proposed alignment of new roads to determine the nature of the material which would be encountered in excavation for grading, particularly whether the cuts would be in rock or dirt.

The information possessed by this Department regarding the occurrence and quality of limestone has been put at the disposal of the Department of Agriculture and the Department of Charities and Corrections in their endeavor to find a quarry of rock suitable for agricultural use, where the quarrying and grinding can be done by prisoners from the penal institutions.

TESTING LABORATORY.

The new laboratory was occupied in January, although in an uncompleted condition, and not accepted by the Board until June. The construction contracts did not include the installation of machinery, work tables, and benches, nor the building of ventilating

hoods, with their complicated plumbing and lighting, and not all of this work was completed even at the end of June. It was therefore necessary to use the old laboratory for many lines of work even after the new building had been occupied.

In order that the funds appropriated for equipment might be used as far as possible in the purchase of needed apparatus, much of the installation of equipment was done by Mr. Gage and his assistants.

This naturally interfered somewhat with the scientific work which might have been carried on, had the new facilities been available. It was possible, however, to do the necessary routine testing work demanded by the State Highway Commission. The materials used in twenty-five pavement contracts were tested and approved before using. During the construction of bituminous pavements, samples of the completed pavement are taken daily by the Highway Department inspectors and sent to the laboratory for analysis. Usually each carload of bituminous and Portland cement is tested before use, and each car of sand and stone during the initial stages of the work is sampled and tested.

At the request of the Highway Engineer, Mr. Gage, in charge of the laboratory, has prepared those parts of the standard road specifications which relate to materials used, and has collaborated in those parts relating to methods of construction. Each road contract is also referred to him for approval as to materials specified. This takes no little time as each contract usually has six sets of specifications to be examined.

In connection with moving from the old to the new laboratory, it was advisable to sort over all samples and to discard a large part, and to revise the record system, work which was not completed.

It is proper at this time to express the thanks of the Department to Col. Washington A. Roebling, through whose interest and public spirit the old laboratory was made possible. For fourteen years Colonel Roebling gave for this purpose, rent free, the second story of a brick building owned by him. Now that these rooms are returned to him, this public record of his action should be made.

DIVERSION OF WATER.¹

The jurisdiction of this Department, as successor to the State Water-Supply Commission, over the diversion of water for potable purposes is set forth in Chapter 252, Laws of 1907, and Chapter 304, Laws of 1910. During the period from November 1st, 1917, to June 30th, 1918, the Board has acted upon five applications and one extension, as follows:

Commonwealth Water Company.—On October 2d, 1917, the Commonwealth Water Company, Summit, filed an application for permission to divert water from wells located in the Canoe Brook and Passaic valleys, to supply the Town of West Orange. After a public hearing in the State House, Trenton, on November 7th, 1917, at which there was no opposition, the application was approved on the same date, subject to the standard conditions and to the following special conditions:

"It is hereby agreed and understood that the diversion of water for the purpose of supplying the Town of West Orange shall be limited to a monthly average of two million gallons per diem, which is the approximate maximum capacity of the proposed 16-inch pipe line connecting the existing one-million-gallon reservoir on Wyoming Mountain and the proposed distribution reservoir in West Orange."

Formal acceptance was filed on February 4th, 1918. Later, the time for commencement of construction was extended to January 1st, 1919, and the time of completion to July 1st, 1920.

City of South Amboy.—On October 17th, 1917, the City of South Amboy filed an application for permission to divert water from wells to be located about one-half mile south of the city limits along the Bordentown and Amboy turnpike for the purpose of supplying the City of South Amboy and vicinity. A public hearing was held in the State House, Trenton, on November 7th, 1918, and the application approved on the same date, subject to the usual terms and limiting the amount of water to be diverted under the permit to an average of 1,500,000 gallons per diem during any month. Formal acceptance was filed February 4th, 1918. The proposed source of supply did not develop favorably and at the close of the period covered by this report the city was in search of a more promising source of water.

Hanover Water Company.—On March 21st, 1918, the Hanover Water Company filed its application for permission to divert water from wells for supplying the Borough of Wrightstown and inhabitants thereof. After the public hearing held in the office of the Board at Trenton on April 3d, 1918, the application was approved subject to the usual conditions and a limitation of 75,000 gallons daily. This plant has been in operation since March, 1918, and supplies the territory formerly served by the Wrightstown Water Company.

¹The paragraphs relating to surface water supplies were prepared by H. T. Critchlow, Water Engineer of the Department.

Atlantic Loading Company.—On May 2d, 1918, an application was filed on behalf of the Ordnance Department of the United States Government by the Atlantic Loading Company, Agent, for the approval of its plans to divert water from wells to supply their shell-loading plant, and the Village of Amatol adjacent thereto, which is the housing section for the workers. The point of diversion is about 2½ miles northeasterly from Elwood, Mullica Township, Atlantic County. The application was approved June 5th, 1918, following a public hearing on that date held in the office of the Board, Trenton. Acceptance of the terms and conditions was filed July 5th, 1918. The water-supply system is in operation.

Bethlehem Loading Company.—On May 20th, 1918, the Bethlehem Loading Company, Bethlehem, Pa., filed its application for permission to divert water from wells for the purpose of supplying the housing section of its shell-loading plant near Mays Landing, N. J. A public hearing was held in the office of the Board, Trenton, on June 5th, 1918, and approval given on the same date subject to the usual terms and conditions. The water-supply plant is now in service.

Peoples Water Company.—On December 5th, 1917, an extension of six months from January 1st, 1918, was granted the Peoples Water Company for commencement of work on its water-supply system at Keansburg, Monmouth County. An additional extension of one year from July 1st, 1918, was also granted on June 5th, 1918. These extensions were made at request of the company owing to delays in obtaining the approval of the Public Utilities Commission.

EXCESS DIVERSION CHARGES.

Charges for 1917.—Under the provisions of Chapter 252, Laws of 1907, and Chapter 304, Laws of 1910, all municipal corporations, corporations, or persons, diverting water either from surface, sub-surface, well or percolating sources, or from any combination of such sources for water-supply purposes, are required to keep accurate records by meter or other approved methods of the amount of water used, and to report the same quarterly to the Board, as successor to the State Water-Supply Commission. For surface supplies, Chapter 252, Laws of 1907, makes certain provision for excess diversion charges.

For the year 1917 the Board fixed a rate of \$1.00 per million gallons, the minimum rate provided by law. Certification of the amount due the State was made on February 14th, 1918, to the Comptroller according to statute. Of the sum certified, \$9,288.07 was paid before July 1st, or within a few days thereafter. The Attorney-General has been requested to bring suits promptly to collect the unpaid accounts.

EXCESS DIVERSION OF SURFACE WATERS, YEAR 1917.

NAME.	Average daily allowance based on census of 1905, or consumption, 1907, in gallons	Average daily consumption for year 1917, in gallons	Average daily excess, in gallons	Total excess for year 1917, in millions of gallons
Acquackanonk Water Co.,	4,356,000	7,242,000	2,886,000	1,053.39
Bridgeton, City of,	1,362,400	2,001,104	638,704	233.13
Burlington, City of,	803,800	1,146,323	342,523	125.01
Butler Water Co.,	280,000	316,100	36,100	13.08
East Jersey Water Co.,	9,081,700	20,041,700	10,960,000	4,000.40
Frenchtown Water Co.,	97,500	157,400	59,900	21.86
Hackensack Water Co.,	21,712,166	27,568,169	5,856,003	2,137.44
Haledon, Boro of,	297,400	400,000	102,600	37.45
Jersey City, City of, ...	38,400,000	52,828,000	14,428,000	5,266.22
Lopatcong Water Co., ..	400,000	1,106,700	706,700	257.95
Middlesex Water Co., ..	1,750,700	4,400,778	2,650,078	967.25
Millville Water Co.,	1,188,400	1,204,270	15,870	5.79
Montclair Water Co., ..	2,752,100	2,829,200	77,100	28.14
Newark, City of,	36,241,666	46,300,000	10,058,334	3,671.28
New Brunswick, City of,	2,566,371	5,239,923	2,673,552	975.86
New Jersey Zinc Co., ..	160,000	170,000	10,000	3.65
Newton, Town of,	442,200	680,895	238,695	87.13
Rahway, City of,	1,521,635	1,835,683	314,048	114.61
John A. Roebling's Sons Co.,	116,000	302,452	186,452	68.05
Somerville Water Co.,...	1,293,335	1,647,876	354,541	129.39
Tintern Manor Water Co.,	3,144,609	3,811,100	666,491	243.27
Trenton, City of,	13,490,000	16,423,000	2,933,000	1,070.54
Totals,	141,457,982	197,652,673	56,194,691	20,510.89

East Jersey Water Company vs. the Board of Conservation and Development.—In June the Supreme Court decided the writ of certiorari obtained by the East Jersey Water Company and the Acquackanonk Water Company vs. the Board of Conservation and Development in favor of the State, thus sustaining the charges for excess diversion in 1915 and 1916 made by this Board. These amounted to \$219.69 for the Acquackanonk Water Company, and \$3,916.73 for the East Jersey Water Company.

The decision was not appealed and the charges were promptly paid.

Inasmuch as several disputed points of law were settled by this decision, it is quoted in full below.

NEW JERSEY SUPREME COURT.

EAST JERSEY WATER COMPANY, <i>Prosecutor,</i>	}	On Certiorari.
<i>v.</i>		
BOARD OF CONSERVATION AND DE- VELOPMENT, <i>Defendant.</i>		

ACQUACKANONK WATER COMPANY, <i>Prosecutor,</i>	}	On Certiorari.
<i>v.</i>		
BOARD OF CONSERVATION AND DE- VELOPMENT, <i>Defendant.</i>		

1. The defendant, as successor of the State Water Supply Commission, certified to the State Comptroller the names of each of the prosecutors above named as corporations owing money to the State for the diversion of water for the last half of the year 1915 and for the year 1916, and the sums due from each for each period, under the Water Supply Act, C. S., Vol. 4, page 5797. The statute requires such certificate to be filed between January 1st and February 15th in each year. The certificates in question were not filed until February 17th, 1917: Held, that the statute as to filing was not mandatory, and that the omission of the State Water Supply Commission or its successor to file the certificates before February 15th in each year did not forfeit the right of the State to collect the sums subsequently certified, the right of appeal being allowed and availed of.

2. The words of the statute "now being legally diverted" means the amount being diverted according to law in 1907 when the act went into effect, and do not extend to a quantity which, by contract, the corporation may subsequently require to supply increased needs of those with whom it has contracted to supply water. An abstractor may take what it was in 1907 diverting, and, if that did not reach the statutory maximum exemption, as much more as is required to make the total maximum diversion allowed without payment of the license fee. If in 1917 the daily diversion exceeded 100 gallons per capita, the amount then diverted may be taken without payment, and, if it was less, no license fee can be imposed until it exceeds the statutory quantity.

Argued February Term, 1918, before Justices BERGEN AND BLACK.

HUMPHREYS & SUMNER, for Prosecutor.

JOHN W. WESCOTT, Attorney General, and HERBERT BOGGS, Assistant Attorney General, for Defendants.

The opinion of the court was delivered by

BERGEN, J.:

The questions involved in the above cases are similar, were argued together, and can be disposed of in one opinion.

The Board of Conservation and Development certified to the State Comptroller the amounts of money claimed to be due to the State from the foregoing prosecutors respectively, for water diverted from streams for the purpose of a public water supply, between July 1st, 1915, and December 31st of the same year, and also from the East Jersey Water Company between January 1st and December 31st in the year 1916 as well. The Comptroller of the State demanded payment thereof and a writ of certiorari was allowed to review the proceedings upon which the demand was based. The power of the Commission to fix the amount and certify it to the Comptroller and his right to demand payment is based upon a statute entitled "An act to establish a State Water Supply Commission and to define its powers and duties, and the conditions under which waters of this State may be diverted." P. L. 1907, 633, C. S., Vol. 4, 5797, section 8 of which provides that "every municipality, corporation or private person in diverting the water of streams or lakes with outlets, for the purpose of a public water supply, shall make annual payments on the first day of May to the State Treasurer for all such water hereafter diverted in excess of the amount now being legally diverted," provided no payment shall be required until such diversion exceeds 100 gallons per capita daily of the persons supplied, the payments required being based on the amount diverted in excess of the amount so fixed, and to be deemed a license, the amount of the payment to be fixed by the Commission at a rate prescribed by the act. The statute further provides that the Commission shall certify to the State Comptroller, as soon as practicable after the first day of January, and not later than the 15th day of February of each year, the names of all corporations or persons owing money to the State for the diversion of water during the preceding year with the amount due; that the State Comptroller shall promptly notify such debtors of the amount of their indebtedness to the State, and if not paid on or before the first day of July of the same year, the default shall be certified by the State Comptroller to the Attorney-General, who shall take immediate steps to collect the same.

It is conceded by the prosecutors that the Commission certified to the Comptroller the names of the two prosecutors and the amount due from each on the 17th day of February, 1917, and that this certificate was subsequently amended by reducing the sums claimed to be due, and the amended certificate filed with the Comptroller of the State, about the 9th day of March, 1917. It is also conceded that the amounts fixed are correct and should be paid if the prosecutors are liable.

The first point which both prosecutors urge relates to the charge for the half year ending December 31st, 1915, which is that, as to this license fee, they are not liable because it was not fixed prior to the 15th of February, 1916, the argument being that this requirement of the statute is mandatory, and if the Commission neglect to fix the amount and certify it to the Comptroller before that date, the right of the State is forfeited.

The prosecutors in their brief insist that the requirements of the act as to ascertainment of the amount due, and the machinery established for the collection of these debts is mandatory, and if not strictly complied with no payment can be enforced by the State. They do not contest the rule that statutes directing the mode of proceedings of public officers are usually held to be directory and that a strict compliance with such a provision is not essential to the validity of the proceeding unless there is something in the statute which shows a different intent, but they argue that the provision that the certificate shall be made not later than the 15th day of February in each year is mandatory, and an express limitation on the right of the State to enforce the payment if default be made, and they further argue that unless this be so the State might enforce such a payment after holding in suspense for an indefinite time, even as long as one hundred years. It is not necessary in this case to speculate regarding conditions a century hence, or even for a shorter period, or whether an undue delay might warrant an inference of the abandonment of such right, for in this case the prosecutors lost nothing by the delay. They were accorded the right to appeal, and their appeal was heard and considered, and was just as effective as if made a year earlier. The statute provides that any party aggrieved by the action of the Commission may file a written complaint on or before March 20th, which shall be heard and the appellant permitted to give evidence of the facts, all of which was accorded the prosecutors in this case, and they availed themselves of it.

It also requires the Commission to certify to the Comptroller the amount due as soon as practicable after the first day of January, and not later than the 15th day of February in each year. This we think is directory and not mandatory, and if the certificate was not filed with the Comptroller before March 20th in any one year, the right of the delinquent to appeal would not be lost. The requirement to file the certificate not later than the 15th day of February in each year is not an express limitation, and the omission or neglect to do so does not work a forfeiture of the right of the State to collect the license fee, if the certificate be subsequently filed and an opportunity for appeal afforded.

It is next urged that the present defendant was the successor of the State Water Supply Commission by virtue of the statute, P. L. 1915, 426, which provides that it shall not take effect, or be construed to include the State Water Supply Commission until the 30th day of June, 1916, and that the State Water Supply Commission shall retain all its powers and continue to discharge them until that date, so that it was its duty to make the certificate for the year 1915, but we see no reason why the defendant could not perform after it came into office the duty which its predecessor had neglected. The liability to pay had been fixed by statute, and it was a mere matter of calculation to ascertain the amount due. We can perceive no legal reason why this license fee should be cancelled, or the State denied its right to collect it, for any of the reasons so far considered.

The writ of certiorari allowed the Acquackanonk Water Company is limited to a review of the order certifying the amount due for the last six months of the year 1915, and it is not concerned in the question raised by the East Jersey Water Company relating to the certificate for the year 1916, and therefore as to the Acquackanonk Company the proceedings will be affirmed.

On behalf of the East Jersey Company it is argued that both license charges are illegal because prior to June 15th, 1907, when the original act went into force, that company was under contract to supply certain municipalities with whatever quantities of water they from time to time required, and to pump and filter all the water used by other water companies which were under contract to furnish a supply of water to certain municipalities, and that it was legally diverting in 1907, such quantity of water as was then, or might in the future be, required to supply its contracts, at least to its then capacity of 65,000,000 gallons daily, while its then actual diversion did not exceed 28,000,000 gallons daily. The defendant certified to the Comptroller as due a sum based on the actual diversion in 1907, and the correctness of the amount and computation is not questioned, the complaint being that the water company is not required to pay for excess diversion where it is required to supply municipalities with which it had then contracted for whatever quantities they from time to time required. In other words, there can be no excess subject to the license fee so long as the diverted water is required to fulfill the contracts.

This construction will make the statute inefficacious because the growing demands of the different contracting municipalities for water may take the entire flow of the Passaic River, and ought not to be adopted unless required by the statute in plain terms. The statute requires payment "for all such water hereafter diverted in excess of the amount now being legally diverted," with the proviso that no payment be required until the legal diversion shall exceed 100 gallons per day per capita. We are of opinion that "legally diverted" means not a future diversion, but one now being exercised under a legal right, and that under this statute a legal abstractor may take what he was diverting in 1907, and, if that did not reach the statutory maximum of exemption, as much more as is required to make the total diversion 100 gallons per day per capita, for each of the municipalities supplied, without payment of the license fee.

If in 1907 the daily diversion exceeded 100 gallons per capita, the amount then diverted, if lawful, may be taken without payment, and if it was less, no license fee can be imposed until it exceeds the statutory quantity. We do not deem it of any importance what disposition the East Jersey Water Company makes of the water after diversion, it is the original person or corporation who diverts that the statute applies to. The license fee was imposed on the excess diverted beyond the amount actually being taken in 1907, and that being, in our view, a correct construction of the law, we find no error in this record.

This leads to an affirmance, with costs, of all the license fees imposed which are now under review in both cases.

COLLECTION OF BACK CHARGES.

Since the above decision has upheld the legality of the charges for excessive diversion heretofore levied by this Board and its predecessor the State Water Supply Commission, the Board has

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taken the position that a suit should be brought to require payment in those cases where it had not been made. In co-operation with the State Comptroller and the Attorney General data for suits against delinquents are being prepared. The water companies and municipalities in arrears with the amounts unpaid are as follows:

Acquackanonk Water Company,	\$1,165 43
Atlantic City,	2,521 62
Bridgeton,	357 60
East Jersey Water Company,	3,916 73
Jersey City,	22,285 34
Millville Water Company,	1,227 48
New Brunswick,	2,491 75
Newark,	5,742 65
Perth Amboy,	82 46
Peoples Water Company,	69 28
Rahway,	270 39
Trenton,	11,606 30
	<hr/>
	\$51,737 03

CONSUMPTION FOR THE YEAR 1917.

The reports from 223 public water supplies throughout the State (which include all the more important systems) show that during the year 1917 a total population of about 2,687,000 persons was supplied with about 313,000,000 gallons of water daily, or at an average rate of 117 gallons daily per person. The following table gives additional information on consumption, etc.:

PUBLIC WATER SUPPLIES IN 1917.

Source of Supply.	Number of Systems.	Population.	Consumption—Gallons daily.	
			Total.	Per Person.
Surface,	48	1,798,526	208,020,000	116
Underground, ..	161	612,672	62,707,000	103
Combination, ..	14	276,053	42,297,000	153
Totals, ...	223	2,687,251	313,024,000	117

This tabulation shows that of the total consumption 66.5 per cent is from surface sources, 20 per cent is from underground sources, and 13.5 per cent is from combination sources. Segregating the surface and underground water included in the combination sources, the percentages of the total consumption become: 72.2 per cent surface, 27.8 per cent underground.

PLANS FOR DAMS.

Glenwild Lake Company.—Plans for the construction of a dam on Mud Brook, about one mile north of Bloomingdale, Passaic County, were filed by the Glenwild Lake Company, Butler, Morris County, October 9th, 1917. Details regarding the plans were set forth in the preceding annual report. Approval was given by the Board November 7th, 1917. Inspections were made December 21st, 1917, March 30th, 1918, and July 11th, 1918, the structure being completed June 27th, 1918.

Palisades Interstate Park Commission.—Plans for the construction of a concrete dam by the Palisades Interstate Park Commission, on Green Brook, Bergen County, were approved April 3d, 1918, after an inspection of the site and minor changes in the plans. This structure will be 290 feet long and raise the water 29 feet above the stream. The lake formed will have an area of 15 acres and a capacity of 45 million gallons; it will be used simply for pleasure purposes in connection with the Interstate Park development.

Inspections.—At the request of Assemblyman H. G. Hershfield, of Passaic County, an inspection was made of the Pompton Lakes dam on the Ramapo River, March 18th, 1918, and a report bearing on the condition and safety of the structure was submitted to the mayor of the borough.

Other inspections were made during the period from November 1st, 1917, to June 30th, 1918, as follows:

City of New Brunswick, dam on Lawrence Brook, April 10th, 1918, and May 21st, 1918.

Montclair Boy Scouts' Association, dam near Oakland, Bergen County, November 30th, 1917, and June 15th, 1918.

City of Newark, Oak Ridge Reservoir dam, November 15th, 1917, April 8th, 1918, and August 16th, 1918. (See fig. 10.)

WATER POWER ALONG MUSCONETCONG RIVER.

The shortage of coal throughout the country has naturally directed attention to water powers and their possible utilization. About 1890 an exhaustive study of the water powers of New Jersey was made by the State Geological Survey and the results

published in Volume III (Report on Water Supply), copies of which can still be obtained by addressing the State Geologist. Since that date there have been many changes in the method of utilizing water powers, most notable of which are the turbine and the electric transmission line. The Department of Conservation and Development by its hydraulic engineer (May, 1918) made an investigation of the water powers along Musconetcong River between Riegelsville and Hackettstown to determine to what extent the available power along this stream is being utilized. This investigation is the beginning of a general study of the water powers of the State to be carried on by the Department as rapidly as circumstances permit.

It was found that at 14 plants a total of about 2,500 H. P. is being utilized, or can be used during normal conditions of stream flow. The largest development is at the Warren plant of the Warren Manufacturing Company, where 950 H. P. has been developed. The total fall in the Musconetcong between Hackettstown and the junction with the Delaware River at Riegelsville is 410 feet. (See fig. 11.) Of this total fall 176 feet, or less than half, are being utilized. However, a large part of the fall cannot be used because ample allowance has to be made to prevent damage and interference from backwater during floods. It would be possible to utilize some of this undeveloped fall by increasing the height of some of the dams. This plan has been followed in the rebuilding of some structures.

The following table compares the utilization of water powers along the Musconetcong between Hackettstown and Riegelsville for 1894 and 1918:

<i>Kind of Mill.</i>	<i>1894.</i>		<i>1918.</i>	
	<i>H.P.</i>	<i>No. of Mills.</i>	<i>H.P.</i>	<i>No. of Mills.</i>
Paper mills,	955	3	1610	3
Grist mills,	579	10	368	6
Graphite grinding mills,	80	1	290	2
Worsted yarn mills, .....	..	..	110	1
Machine knives mills,	75	1	100	1
Saw mills, .....	..	..	40	1
Snuff mills,	35	1	..	..
Total,	1724	16	2518	14
Total head in feet,	179		176	

**Fig. 10. Raising dam at Oak Ridge Reservoir, on Pequannock River—
Newark Water-Supply System.**

**Fig. 11. Power dam and raceway on Musconetcong River, above
Riegelsville.**

Fig. 12. Measuring weir on outlet to Splitrock Pond, Morris County.

This tabulation shows an increase of 46 per cent in the utilized horse-power during 24 years, although the number of mills decreased by two, one being put out of use and another having been washed out by floods. However, this reduction in the number of mills has caused only a slight reduction in the total head developed on account of increase in the height of some of the dams that have been repaired or rebuilt.

The topography and development of this valley are such that large storage reservoirs are not practicable, hence there is considerable variation in the amount of power available at different seasons. In order to maintain their power six plants have installed auxiliary steam or oil engines. The Warren Manufacturing Company has just completed a project to utilize electricity from Easton, Pa., for auxiliary power. This plan will save coal on account of the high efficiency of the central power plant and will eliminate the transportation of coal to the isolated plants.

Practically all of the dams originally built to develop these water powers along the Musconetcong were of the timber-crib, rock-fill type. In some cases this type of construction extended from bank to bank, forming the entire dam, while in other cases only the spillway or overflow portions were of this type, being connected to the banks by earth wings or dykes. Within recent years six of these original structures have been repaired, or replaced by the more permanent concrete dams, which are not only safer, especially during floods, but require very little maintenance work.

EFFECT OF METERING ON WATER CONSUMPTION.

This Department in co-operation with the State Public Utilities Commission is studying the effect of metering on the consumption of water and the water rates throughout the State. To date the work has included the collection of data bearing on this important subject and certain tabulations from the annual reports for 1917 of the water utilities to the Public Utilities Commission. Sufficient time has not been available to complete the investigation, but it is proposed to complete the work as soon as possible since interesting and valuable conclusions can probably be obtained.

MEASUREMENT OF WATER CONSUMPTION.

The first duty of the waterworks official is to furnish to all of his customers a safe and satisfactory supply of water both as to quality and quantity. In rendering this service he must ever keep in mind the cost of production and maintenance involved, otherwise the water supply plant and the people served will suffer on account of the inefficiency which will certainly follow a lack of attention to this important factor. The total cost of the service is directly dependent upon the amount of water furnished, and this is especially true for water supply plants where pumps or a purification system have to be maintained.

Reports to this office submitted by the various water departments and companies throughout the State show that a number of water plants have no accurate means of determining the amount of water furnished to the distribution system by their pumps, and that some gravity plants have absolutely no way to measure the draft on their reservoirs. Permanently installed meters on the supply mains afford the best means of knowing the amount of water delivered; and when these instruments are properly adjusted and maintained they give a continuous and accurate record of the consumption which is of great value. Another common method of measuring the water consumption in a pumping system is to make use of the capacity of the pump and the number of strokes or revolutions as recorded by the automatic counter with which most up-to-date pumps are provided. The accuracy of this method depends upon the efficiency of the pumps as regards "slippage."

With the idea of rendering a practical service to the water supply systems in the State, this Department has recently contracted for the purchase of an up-to-date equipment for measuring the flow of water in the supply mains. The tests made with this equipment will indicate the total flow, and the variation in the rate of flow for the period of the test, which may range in length from 24 hours to a week, or even longer in some cases. Such a test made on a pumping system will enable the determination of the amount of slippage, and may be the means of saving considerable quantities of fuel, which is a patriotic duty. Ex-

cessive leakage can also be detected and thus afford another check on the expense of operation.

CAUSES OF WATER SUPPLY SHORTAGE.

The unnecessary use and careless wasting of water is a habit for which American towns and cities are noted. The average consumption for 40 American towns and cities has been given by a reliable authority as 101 gallons daily per person, while the average for 40 European cities is given as 51 gallons daily per person. A great many people consider water to be practically as free as the air they breathe. Yet it costs money to install and operate the water plant that delivers water to the consumer, and this cost is directly in proportion to the amount of water delivered. The water consumers, including those who buy their water unmetered or on the "flat rate," in the long run pay the total cost, and are penalized for the careless use of water in the lack of service due to low pressure and scarcity during times of excessive consumption.

The experience of last winter brought home to many communities in New Jersey as well as throughout the country in general, that their water supplies must be conserved and improved to meet the emergency demands upon them. An analysis of the situation throughout this State shows that the water shortage has been due to one or more of the following causes:

1. Increased draft due to wasting of water.
2. Limit of the water-plant capacity.
3. Damage to a vital part of the water plant.
4. Increased draft due to rapid increase in the territory supplied.
5. Shortage of water in streams, wells, or other source of supply.

A well-designed waterworks is capable of delivering sufficient water to meet a reasonable maximum demand, including water for fire fighting. Nevertheless, many communities experience a lack of pressure and supply of water during extremely cold weather. The all-too-common practice of wasting water to prevent freezing of pipes is invariably the cause of the shortage.

If such a practice is ever justifiable, it is not necessary to waste more than a very small stream to prevent freezing in the pipe.

The installation of meters on all of the house-service pipes would at least make it possible to charge the careless customers for the water they waste and induce them to take measures to improve conditions to prevent freezing of the plumbing. The engineering literature cites many localities which have lowered their water consumption by the installation of service meters on all houses. Another cause of weakness in many systems is excessive leakage in reservoirs, in the transmission mains, and in the distribution pipe lines. All water should be metered at the intake or at the pumps so that there may be a check on the water lost due to these causes. Sometimes a special survey for leaks is very profitable.

The last cause of water shortage mentioned above, but by no means the least important, has to do with a lack of water at the source of supply. It is a fact, well known but unfortunately too often disregarded, that streams, and even wells and springs, are subject to a wide variation in the amount of water they will yield at various seasons of the year. It is not wise to depend upon a source of supply for more water than it will deliver in the driest period; the dry-season yield of the source can be augmented by storing water during the wet season, but there is a possibility of over-development and of being unable to fill the reservoir during unusually dry years. A continuous record of the flow of a stream over a long period of years is of the highest value in determining the amount of water available from the drainage area. Such records are seldom available due in part to lack of foresight in planning for future sources of supply and also because the value of such data, as compared with the cost and trouble of obtaining them, is too often not appreciated. Next in value to a continuous record comes one of the flow for the driest period. Finally, a record of the rainfall in the vicinity for a long period of years, combined with the area of the watershed, is of value in estimating the flow of the stream. Actual records of stream flow should be used when available and every effort should be made to obtain such records, at least for the dry periods. When it is proposed to take a new supply from a stream, a weir, or

other measuring device, should be established at some point near the proposed intake at the earliest date possible and continuous records kept (fig. 12).

This Department through its engineering force is ready to co-operate with waterworks' officials in their studies for the improvement and development of their sources of supply. While the office records as to the yield of streams and wells and the distribution of rainfall throughout the State are far from complete, they are available for whatever application they may have in the study of the available water-supply.

UNDERGROUND WATERS.

Inquiries answered.—Frequent inquiries regarding underground water-supplies come to the Department from engineers, well drillers, water companies, municipal water departments, State institutions, manufacturers, and private individuals. Information is usually desired as to the probable success in obtaining supplies, quality and quantity of the water, depth of water-bearing strata and nature of the materials likely to be penetrated. The experts of the Department, aided by an extensive collection of well records from all parts of the State, answer such inquiries as fully as the facts in hand justify.

Localities recently reported upon.—Among the localities studied and reported upon during the past year, the following are of special importance; Mount Holly, for the Mount Holly Water Company; South Amboy, for the City Engineer; Wrightstown, for the Wrightstown Water, Sewer and Light Company; Sandy Hook, for the United States Proving Grounds; Colonia and Rahway, for the United States Convalescent Hospital; Elwood and Amatol, for the Atlantic Loading Company; Mays Landing, for the Bethlehem Loading Company; near Middlebush, Middlesex County, for the United States Radio Station; Maurer and Perth Amboy, for the Barber Asphalt Paving Company; South Trenton, for the Magnetic Pigment Company. It will be noted that six of the above are directly related to war enterprises.

Collection of well records.—A number of new well records of value have been added to the extensive series now in the files of the Department. Information of this kind is of great practical value and all who can supply any data regarding recently drilled wells or deep borings or contemplated well-drilling operations will be assisting us greatly in our investigations by forwarding the facts to Dr. M. W. Twitchell, Assistant State Geologist, who has immediate charge of this work.

Report on underground waters.—During the year Dr. Twitchell has made substantial progress in the preparation of a comprehensive report upon the underground water supplies of the State.

Fig. 13. Woodlot improved by partial cutting.

Report of the State Forester.

ALFRED GASKILL.

The Division of Forestry and Parks has devoted its effort to the protection of forest interests within the State and to meeting war needs. All else has been subordinate.

War work has included advice and assistance in the location and development of ground for encampments and munitions plants; the protection of the same against forest fires; aid in the search for woods required in war industries of which the State has some supply, as ash for airplanes, walnut for gunstocks, oak for shipbuilding; provision for wood fuel to help out the coal shortage; and assistance in recruiting the 10th and 20th Engineer Regiments, made up of foresters and woodsmen, and now doing effective work in France. *The protective service* has included the maintenance of the forest fire organization at a high point of efficiency; the care of the State forests; and as much attention as could be given to private forest lands and to shade tree interests. Several members of the Division have gone into the army; their places have been filled by men who are not eligible for such service.

THE FORESTS OF NEW JERSEY.

It is necessary to repeat, and to emphasize, the statement so frequently made, that New Jersey has too much forest, measured by area, though far too little if measured by value. The effort of the Division is to have converted to agricultural, or other higher use, the land now in forests that is suitable for such purpose, and to give the remainder a greater value. New Jersey can well afford to clear three quarters of a million acres

of forest land; it would then have remaining the 25 per cent of its area in forests which is commonly held to be necessary for the welfare of a State.

This end can be secured chiefly through fire control. Our forests are naturally so vigorous, that, given a chance, they easily maintain themselves, not in ideal condition to be sure, but well enough until the people shall have recognized their true value, economic and social. Forest planting is unnecessary, except in a limited way where clearings have been unwisely made, or where the owner prefers to have forests rather than fields. It is important to contest the belief that worth-while forests can be secured only by planting. In this State nature usually will perform the task at far less cost. Chiefly for this reason the Department furnishes no young trees for forest planting, as is done in some States.

The forests of the State, however owned, have gained materially within the past ten years. Most of the improvement is due to fire control, and to the increased care that such security induces. Further gains will depend in large measure upon the maintenance, and the betterment, of the forest fire service.

ASSISTANCE TO WOODLOT OWNERS.

One of the chief efforts of the Division is to help forest owners make their properties productive. Assistance in forest management, in forest planting, in all that is involved in the care of a forest, is given without cost, except for traveling expenses, wherever it is requested. This service has been accepted by many persons this year and the result, especially in portions of North Jersey, is clearly seen in the many ordered forests, and in their increased productiveness. Present lumber prices offer no great encouragement toward the expenditure of money in forest improvement, but an owner who looks toward the future, especially one who considers the æsthetic value of a woodlot, finds that a satisfactory income from the outlay involved is easily calculable.

WOOD

MUST BE BURNED

IN THE RURAL SECTIONS

TO SAVE COAL

FOR THE TOWNS AND CITIES

WOODS. FUEL MUST COME BY RAILROAD

Every Ton of Coal carried into this Country Involves enormous Freight Charges

It is very possible that where Fuelwood is available without Railroad Delivery

COAL WILL BE REFUSED

AS A

WAR MEASURE

Coal Dealers, Business Men, Farmers and Residents

In communities where Fuel-Wood can be cut and hauled locally are urged to

PROVIDE WOOD FUEL

FOR NEXT WINTER

REINHOLD C. JENNINGS
Federal Fuel Administrator Jan. 26, 1918

WISE CUTTING WILL IMPROVE OUR
WOODLANDS, WHILE FURNISHING
FUEL-WOOD.

ADVICE FREE UPON REQUEST

ALFRED GASKILL
State Forester

MAKE NEW JERSEY'S FORESTS HELP WIN THE WAR

The excess and inferior wood now standing in New Jersey forests equals in Fuel Value 3,000,000 Tons of Hard Coal or 7000 Car Loads of 80 Tons each.

The removal of this wood will not deplete, nor injure, but will improve the woodlands. Failure to do so will deprive the fuel and the shortage will be supplied by the sale of any excess supply. (1) furnishes \$1.00 worth of fertilizer in the ashes of each cord, (2) uses otherwise wasted wood and leaves the remaining timber improved. Do not strip any area clean, thin it out regularly and systematically, thereby stimulating growth. Weed the woods like a garden, but not the waste and excess products as the gardeners cannot. Advice and assistance in doing such cutting for improvement is given free. Write for particulars and publications.

ALFRED GASKILL, State Forester, Trenton

The Government needs BLACK WALNUT and WHITE ASH Timber for Gunstocks and Airplanes. These growing or bearing of Trees or Growth of these species will help by notifying the STATE FORESTER of their location, size and condition.

Fig. 14. The wood fall campaign.

MARKETS.

The public is well acquainted with the difficulty of marketing agricultural products with satisfaction to the producer; an even greater difficulty is found with forest products, where the quantity available is small and often remote. To meet this difficulty the Division maintains a corrected, up-to-date list of buyers of all kinds of forest products, and is prepared to help bring buyers and sellers together without cost to either.

On the buyer's side the Division is also helpful, as when last winter, it found within the State logs for the makers of truck baskets who, because of freight congestion, were unable to satisfy their needs from the South, their source of late years.

WOOD FUEL.

Anticipating a shortage of coal last winter, the Division prepared early in the fall a bulletin on wood fuel. Owing to printing delays it was not available until December, but at the height of the coal famine, it, and several press bulletins issued, had a positive effect in increasing the production of cordwood. Since that time, the Division has co-operated actively with the State Fuel Administrator, and now is directing a campaign for a much greater production of cordwood for use next winter. (Fig. 14.) In this effort the agricultural interests also are co-operating.

New Jersey has ample supplies of wood-fuel—certainly not less than half a million cords. Most of it can be taken from the forests in a way not to injure, but positively to improve, them. Unfortunately the congestion in transportation, and scarcity of labor, make it impracticable to provide more than a small quantity of this fuel for city use. It must be utilized by those who live within hauling distance of the forests. Every cord of wood that is used in the country saves the transportation and the use of three-fourths of a ton of coal, for the people and the industries that cannot use wood. One result of the effort last winter was, that in at least two State institutions suffering was averted by the ability of the managers to provide wood when the coal supply failed.

The successful practice of forestry anywhere depends upon a constant market for cordwood. It would be a blessing to the State if the rough wood that now cumberes our forests could be systematically removed without expense to the owners.

FOREST FIRES.

The report of the State Firewarden covers this subject in full. New Jersey now stands well in the van in the efficiency of its forest fire service, though no one knows better than those closely connected with it, its defects and limitations. To maintain an organization of 5 State wardens, and about 350 local wardens, covering approximately 1,900,000 acres of forest, on a total expenditure, State and townships, of about \$25,000 a year, is something of an achievement. That fires are not completely suppressed is quite a matter of course, in view of the exposure, the character of our woodlands, and of the people who frequent and live adjacent to them. The experience of 12 years justifies the belief that the fire problem in New Jersey is well in hand. We shall have fires, and serious ones, so long as our woodlands are held in low esteem, and so long as the control exercised by the State lacks the strength which the State Firewarden represents that it needs. The greatest promise of betterment lies in a provision for an adequate patrol of the forested areas during the dangerous seasons, spring and fall. As the State's effort in forestry is predicated upon an effective fire service, there can be no sufficient, or satisfactory, forestry, or forests, except in the degree that forest fires are prohibited.

STATE FORESTS.

During the year, 501 acres have been added to the area of State forests and 1,400 acres more are under purchase contract. Only two forest fires occurred on the whole 16,178 acres, and they burned but 12 acres. The condition of the forests on all of the properties is steadily improving. The plantations made on the Lebanon and the Bass River forests promise to give valuable information concerning the value of various species for planting. In June a contract was entered into for the removal of merchant-

able timber, chiefly dead and dying chestnut and dead oak, on a portion of the Stokes forest. The contract will run for a year, is expected to yield about \$600 and will considerably improve the property.

In the spring the artillery command at Camp Dix made an examination of the Lebanon forest for the purpose of determining its fitness for an artillery range. Fortunately, it was found to be not suitable, chiefly because the tree growth has become so dense. This fact supports in an emphatic way the contention that in South Jersey any forest will establish itself wherever protection against forest fires is assured.

On the Stokes forest a fire outlook tower is under construction on one of the highest points of the mountain. This will have telephone connection and will be valuable as an observation point and a shelter for tourists, as well as a means of locating forest fires. Its construction was made possible by a contribution of \$250 by the Federal Forest Service from the fund provided under the Weeks' law. The State furnished more than an equal amount.

The construction of trails, and the improvement of roads on the Stokes forest has gone forward, though much more slowly than is desirable. A number of camp sites along the brooks and adjacent to the waterfalls have been prepared for occupation. The systematic development of this forest along recreational lines is highly desirable. Its extension to include the greater part of the crest of the Kittatinny Mountain, and the formation of a great State forest park, would be of immense advantage to all outdoor lovers, as well as to the section in which it is located. Provision for the establishment of this forest park is strongly urged.

The State forests and their locations are described as follows; inquiries can be addressed to the warden or ranger in charge, or to the State Forester.

STATE FORESTS.

Bass River Forest.—Warden, Samuel Budd Allen, New Gretna, . . . 1,634 acres. Is in Burlington County, six miles northwest of Tuckerton, and is typical of the so-called "pine barrens." A considerable number of experimental plantations and several well-developed experimental thinnings are on it.

68 CONSERVATION AND DEVELOPMENT.

- Jackson Forest.*—Warden, 43 acres.
Is in Ocean County, 10 miles west of Lakewood on the New Egypt road, and carries a forest of nearly pure pine about 35 years old. It is used to demonstrate the methods of practical forestry and as a resting place for travelers.
- Lebanon Forest.*—Warden, Victor Bush, Pemberton, 3,620 acres.
Is in Burlington County, nine miles southeast of Pemberton, and contains pine, oak and cedar. Several experimental plantations and more recent thinnings are on it, but it is used largely as a demonstration in fire control under particularly difficult conditions. Considerable fire damage has been suffered since the acquisition of the property, but it is in better condition in every way than when it was acquired. A portion of the area is under agricultural development by the State Colony for Feeble-Minded Males at Four-Mile.
- Mount Laurel Forest.*—Warden, Harvey Darnell, Moorestown, .. 20 acres.
Is an isolated tract of hardwood and pine in Burlington County, three miles southeast of Moorestown. It is peculiarly accessible and susceptible to forest management, and because of very complete and successful thinning and plantings six years ago, has unusual value as an example of applied forestry. (Fig. 13.)
- Penn Forest.*—Warden, George L. Inman, Chatsworth, 2,764 acres
Is in Burlington County, six miles southeast of Chatsworth. It is a tract of almost pure pine in the heart of the wilderness. The forest on much of it is in better than average condition and affords a pointed example of the value of fire protection in developing timber growth under typical conditions in "The Pines."
- E. C. Stokes Forest.*—Forest Ranger, Paul B. Haines, P. O. Branchville, 7,537 acres.
Is in Sussex County, two and a half miles west of Branchville. It is typical of absolute forest land in North Jersey. Under fire protection it is rapidly developing in value, and it has great possibilities as a park. Roads, trails and camping sites are being provided as fast as facilities permit. Through recent additions the forest is now easily accessible from the highway in Culver's Gap and is available for use by a limited number of camping parties.
- Swartwood Lake.*—Forest Ranger, Paul B. Haines, P. O. Branchville, 560 acres.
Is in Sussex County, seven miles northwest of Newton. It consists of Swartwood Lake, with an area of 544 acres, and eight adjacent pieces of upland embracing 16 acres. It is maintained for the use of the public as a park and recreation spot.
- Total, 16,178 acres.

Fig. 15. Trees must be planted to break glare and wind.

Fig. 16. Trees planted too closely—road over-shaded.

Fig. 17. No planting needed.
SHADE INCREASES THE VALUE OF OUR HIGHWAYS.

STATE COLONIES.

It is unfortunate that the offer of a portion of Stokes forest as a site for a second feeble-minded colony has not been accepted. The colony at Four-Mile on Lebanon forest, which was established in 1914 and now has 48 inmates, seems to prove the wisdom and value of locating such institutions remote from centers of population. By the establishment of a similar colony in Sussex County, the people of New Jersey would be greatly advantaged, while the State forest itself would gain directly by the labor that the inmates might perform in the forests and on the roads.

SHADE TREES.

The Division constantly finds opportunity to be helpful to municipal shade tree commissions and to numerous shade tree owners. Its policy and practice is to afford a shade tree commission definite advice and assistance by visits as often as may be required. Individuals are commonly assisted by mail, as it is practically impossible to take up on the ground questions affecting single trees. Much more work in this line would be accomplished if the Department were able to employ an arborist, as has been recommended for several years.

Shade tree commissions.—The list of shade tree commissions published in the report for 1917 has had a few additions, but need not be republished, though the fact that the State has upwards of 90 such organizations, with resources of nearly \$300,000 a year, deserves emphasis. An amendment to the Shade Tree act, passed at the last session of the Legislature, simplifies the law in several respects.

Shade tree guide.—A twenty-two-page bulletin entitled "A Shade Tree Guide" was issued in May and is available for the benefit of all who want to know how to care for their trees properly. It deals with the subjects of planting, injuries, nourishment, etc., in a brief, practical way.

Roadside trees.—The effort to have the country roads throughout the State bordered by trees is progressing. There is a very

general desire for this advance, and, as this is written, the State Highway Commission has under consideration a proposition that it adopt a rule that all roads under its jurisdiction shall be provided with shade wherever that is practicable; that such shade shall be secured by rows, or groups, of trees retained from the adjacent forest; or, in open country, by planting such species in such manner as conditions make most advisable. The foresters of the Division will furnish the necessary technical assistance. (Figs. 15-17.)

Ornamenting public school grounds.—Little progress has been made in the effort to have public school authorities give more attention to planting the school grounds—for instruction in dendrology as well as for pure ornament. The Department of Public Instruction, however, has in preparation a handbook relating to the construction and beautifying of school buildings and grounds. To that the State Forester will contribute a chapter on school-ground improvement. The offer heretofore made to prepare for any school board, without cost, a landscape plan for their school grounds is still in force, and the Division is ready to be of assistance in that way.

TREE PESTS.

No new tree pest, of either insect or disease form, has come to the State. Through the activity of the State Entomologist the Gypsy moth and the Brown-tail moth, which cause such havoc in New England, do not trouble us, and the Elm-leaf beetle is kept in control. The white pine blister rust continues to give concern to all owners of white pine trees and it is doubtful if we shall escape serious losses through this disease. Fortunately the State has no important forests of white pine. The chestnut blight is still present, and in the northwestern part of the State continues to destroy a large number of trees, though indications that it is less virile than it was are not lacking.

In December a press bulletin warning all shade tree commissions and tree owners of the danger of a tussock moth outbreak was prepared in co-operation with the State Entomologist and widely published. The infestation occurred according to prom-

ise, only a few communities threatened having taken the necessary precautions.

With the exception of the pine blister rust and the chestnut blight, all serious tree enemies within our borders are controllable by practical means. It is unreasonable to expect that any shade tree should live and thrive indefinitely under adverse conditions and with an utter lack of attention. A moderate amount of intelligent care will serve to ward off most ills to which shade trees are subject. The Division can and does help by advice and instruction. It has no power to do more.

DO NOT EMPLOY UNKNOWN TREE DOCTORS.

Tree owners are again urged to care for their trees, or to have them cared for by reputable experts. A man who is unknown, or without credentials, should never be allowed in a valued tree. He is likely to do more harm than good. The State Forester is ready to advise all inquirers.

Report of the State Firewarden.

C. P. WILBER

INTRODUCTION.

The report which follows is for the eight months, November, 1917, to June, 1918, inclusive, in conformity with the new official year designated by the last Legislature. Because of this it has not been attempted to compare the shortened year with the full twelve months of previous reports in any detailed way.

Also, the midsummer break in the new year strikingly interrupts the active forest fire season. Because of this, and since the calendar period is both the normal division and is in universal use throughout the country in dealing with forest fire figures, the records will hereafter be compiled from January to December.

On account of this the figures for the period from January to June of the past fiscal year will appear again in summarizing the complete calendar year 1918 in the next report. Therefore the data and discussion below are in a measure unrelated to those of preceding years and to the future. Since they thus stand alone, the statistical matter is treated in a far less specific way than heretofore.

SPECIAL WAR CONDITIONS.

War activities and conditions have presented special features in the forest fire work in three respects.

1. Withdrawal of the man power from rural sections for military service and by industrial employment has made the task of finding adequate crews of competent fire fighters difficult and often well-nigh impossible. The situation is still further aggra-

vated by the prevailing high wage rate, which renders the maximum legal compensation offered for forest fire service so unattractive that the wardens encounter a reluctance in response to their summons which has heretofore never been known. Because of this it is becoming difficult for wardens to respond to calls for fires with their usual promptness and to control fires as effectively and shortly as heretofore. It is not possible, of course, to replace the workers, nor wise to alter a previously satisfactory wage scale, to meet a temporary condition. It is but just to the local force, however, that the situation be noted to avoid unfair criticism and to stimulate still greater public care with fire.

2. In the heretofore strictly forest sections the sudden and tremendous development of munitions plants and depots, of camps and war-time industries and activities, has brought into these sections a fire menace of unprecedented magnitude. The clearing of vast areas of woodlands in the heart of the remote forest sections has necessitated the burning of huge quantities of brush and waste materials. The haste of the operations has tended to minimize proper caution in this work and force its supervision into the hands of inexperienced and indifferent managers. Because of this, few, if any, of such projects have failed to start one or more forest fires and in a number of instances these have become so large as to rank with the most serious fires in recent years.

3. The sudden influx of great numbers of workers to the outlying sections because of the industrial and military concentrations mentioned above has brought its serious menace also. These workers, largely of the nomadic or commuting type, have filled the highways in the forest areas with traffic heretofore undreamed of. A large proportion of this element has no conception of the readiness with which fires start, or of their destructive capacity when burning. Some are simply careless, some indifferent, but discarded smoking materials and matches from this population already have greatly increased the fires which start, and threaten to give still further difficulty as they increase in numbers.

To meet this situation with the ordinary means is not a possibility. Short-handed and less efficient fire fighting is but one of the normal outgrowths of the national war activity. It must,

and will be, met in each locality with as little weakening of the previously attained efficiency as possible. But the increased menace is outside the sphere and beyond the control of the existing organization. Through the efforts of the State office, efficient and interested foremen have replaced the original men in charge of brush burning in a few instances and the local situation has been relieved. But no general remedy will be found in this way. There must be made available an adequate force to patrol such locations, if serious conditions are to be avoided in the coming fall and spring. Without this, even its partial control will be extremely problematical. (See p. 85.)

THE FIRE SEASON.

During November, 1917, the State experienced unusually severe forest fire conditions. Early and continued low temperature produced an exceptionally heavy leaf litter. Dry weather made the surface growth and litter dangerously inflammable. Prevailing high winds rendered fires extremely hard to control. Because of these conditions and concurrent with the opening of the hunting season, there were from two to four times as many November fires as in any recent year save in the holocaust of 1914, which but little exceeded the record of the past fall. Many of the fires occurred at times and in places which made it impossible to control them before they had burned large areas.

The early winter weather late in November put an end to a serious situation and brought relief until the opening of spring. In March an unusually early season of fine weather ushered in an early fire season, which accompanied by high winds brought on a difficult fire situation. Because of this, more than one-third of the fires, in the eight months considered, started during this month and in a number of instances they reached large size.

April and May were unusually favorable and, save for short periods of dry, windy weather, brought an unexpected relief from the conditions of the preceding month. Although during brief drouths fires occurred in considerable numbers, few of them

became serious in size. With the opening of June, full summer foliage and continued wet weather so reduced the fire menace that a negligible number occurred, none of which were serious.

FOREST FIRES BY MONTHS.

	No.	<i>Per Cent of Total.</i>		No.	<i>Per Cent of Total.</i>
November,	201	27	March,	230	30
December,	11	1	April,	193	26
January,	4	1	May,	100	13
February,	9	1	June,	7	1

NUMBER AND AREA OF FIRES.

(See Tables 1 and 2.)

In previous reports it has been customary to set out very small or incipient fires as "embryo fires," these being all fires under 5 acres in area. To conform more nearly to prevailing practice elsewhere and to secure local data in more detail, only fires burning less than 2 acres are this year and will be hereafter included in the "embryo" class. Of necessity, it appears at first from this new classification that the proportion of fires which are true forest fires has increased. For the year, 29 per cent of all fires have burned less than 2 acres, 63 per cent less than 10 acres, and 90 per cent less than 100 acres—a decided improvement over the previous records in this respect. Moreover, for the period covered, the average area per fire, 73 acres, and the average loss per fire, \$68, are the lowest figures since 1912.

The total area burned was 55,282 acres and the loss recorded \$51,529. (See Table 1.)

Seriously large fires, burning 1,000 acres or more each, have been fewer, and that they have reached such size in every instance has been due to abnormal winds in a dry time, or to remote location which delayed their discovery, retarded the arrival and hampered the movements of the fire fighters, combined with the conditions outlined on pages 73 and 74.

Table 1—Forest Fires in 1918, and in Previous Years.

Years.	No. of Fires.	Total Acres Burned.	Acres per Fire.	Total Loss.	Loss per Fire.
No organized service, incomplete reports.					
1872,		100,000	.....	\$1,000,000	.....
1880,	54	71,074	1,316	252,240	\$4,671
1885,		128,000	.....	1,128,000	.....
1895,	49	66,120	1,349	600,000	12,245
1902,	65	98,850	1,520	169,323	2,605
1903,	79	85,046	1,076	305,744	3,870
1904,	81	41,530	512	193,413	2,388
Organized fire service.					
1907,	167	11,525	69	11,647	70
1908,	533	52,978	100	64,536	121
1909,	563	93,525	166	133,944	238
1910,	611	81,452	133	127,850	209
1911, Forest Fires,	289	64,404	122	86,940	165
Embryo Fires, ¹ ...	239				
1912, Forest Fires,	214	26,291	48	21,501	39
Embryo Fires, ¹ ...	331				
1913, Forest Fires,	311	53,823	77	67,205	99
Embryo Fires, ¹ ...	367				
1914, Forest Fires,	396	78,655	92	83,880	99
Embryo Fires, ¹ ...	451				
1915, Forest Fires,	549	150,258	147	209,090	207
Embryo Fires, ¹ ...	467				
1916, Forest Fires,	269	51,654	88	69,001	118
Embryo Fires, ¹ ...	314				
1917, Forest Fires,	486	92,479	106	79,335	90
Embryo Fires, ¹ ...	385				
1918, ² Forest Fires,	539	55,282	73	51,529	68
Embryo Fires, ³ ...	216				

¹ Burned less than 5 acres.² Burned less than 2 acres.³ Short year—8 months only.

Table 2—Forest Fires by Relative Area Burned, and by Counties, November 1, 1917, to June 30, 1918.

COUNTY.	Number of forest fires.					Total Embryo Fires (less than 2 acres).
	2-10 Acres.	11-100 Acres.	101-1000 Acres.	Over 1000 Acres.	Total.	
North Jersey—						
Bergen,	16	11	1	1	29	15
Hunterdon,	2	.....	1	.....	3	4
Morris,	48	32	10	.....	90	26
Passaic,	11	20	6	.....	37	20
Somerset,	18	2	2	.....	22	8
Sussex,	11	13	.....	.....	24	9
Union,	5	3	3	.....	11	1
Warren,	12	4	2	.....	18	16
Fires that burned in more than 1 county, .....	.....	.....	1	1	2	.....
Totals,	123	85	26	2	236	99
South Jersey—						
Atlantic,	22	25	14	1	62	29
Burlington,	10	4	4	.....	18	2
Camden,	11	10	2	.....	23	14
Cape May,	9	11	2	.....	22	8
Cumberland,	18	29	8	2	57	9
Gloucester,	5	9	1	.....	15	3
Mercer, .....	.....	.....	.....	.....	.....	4
Middlesex,	18	15	4	.....	37	5
Monmouth,	23	5	3	.....	31	13
Ocean,	15	14	3	2	34	26
Salem, .....	.....	1	.....	1	2	4
Fires that burned in more than 1 county, .....	.....	.....	1	1	2	.....
Totals,	131	123	42	7	303	117
State Totals,.	254	208	68	9	539	216
Per cent. of State Totals,	34	27	9	1	71	29

CAUSES OF FIRES.

(See Table 3.)

Railroads.—This year fires set by the railroads have been 31 per cent of the total, the lowest percentage ever recorded from this cause. This record, despite the difficulties known to be prevalent, especially in proper care of the rights-of-way, is emphatic testimony to the prevailing interest in fire prevention and control, particularly among those who have charge of the rights-of-way. It is known that a considerable additional number of fires have started along the railroads, which were so promptly and effectively controlled by railroad employees that no notice of them reached a firewarden. While far from being a settled problem, it seems fair to hope that the period of greatest anxiety on this account is passing. When a co-operation as ready and as thorough can be reached with the operating departments as that now almost universally existing with the right-of-way departments, the annual responsibility of railroad locomotives for forest fires will be a minor factor.

Brush burning.—This year the number of fires caused by careless or ignorant burning for "cleaning up" is greater in proportion to the total than before. Further, the 13 per cent so recorded unquestionably does not represent the total number so started, because of the impossibility of locating the origin of many "brush" fires, in the busy season for such fires, without a more complete patrol. Where patrol has been possible forest fires from this cause have been few. Rigid enforcement of the requirement for permits for building any fire in or near the woodlands is gradually reducing the unnecessary burning and inducing greater care where fire must be employed. It also is increasing the precision with which the origin of fires from brush burnings are known. A widespread and active patrol of the principally affected areas during the special danger periods appears to offer the only means of rapid progress in curtailing fires from this cause. (See p. 85.)

Smokers.—A determined effort to ascertain more closely what fires may be charged to careless smokers has brought out the fact

that 21 per cent of the total fires which burned were so started. It is beyond question that this figure would be far larger could all such fires which are now classed as of "Unknown Cause" be segregated. An effort has been made to reach the smoker with a warning through wide distribution of a special poster dealing with this problem. Here again, however, persistent patrol alone appears to offer the final remedy; not alone through the apprehension and punishment of those who thus start fires, but by its insistent appeal and warning to smokers frequenting the rural sections.

Miscellaneous.—As the work of caring for fires and ascertaining their causes grows better organized and more precise, the ignorant and unnecessary use of back-fire is found to be a major cause for the large size and long duration of many, if not most, of the larger fires. This tendency to ill-advised use of fire by any but an authorized warden in the presumed intent to check a fire already running, or the selfish protective burning for personal protection which is allowed to run at will after its primary purpose has been achieved and its originator's property safeguarded, has been recognized as a serious, as well as an illegal, menace since the work first started. Its relation to the fire control work is more evident from this year's record than ever before, but final control must wait until patrol is made available to provide men who have the time and means of watching this situation while fires are burning. This the active fire fighting forces cannot find opportunity to do while busy with the fire itself. This year again a small proportion of the fires have been due to children at play, another situation which is susceptible of only gradual remedy through education, unless an enlarged State force is made available.

Campers, picnickers and sportsmen.—It annually is pointed out that the illegal and careless or ignorant building of camp fires, bonfires, and the like, is responsible for many fires. Persistent endeavor to advertise this situation is slowly replacing the wood fire by more convenient and effective alcohol or petroleum burners. But the natural tendency to gather round and cook over the camp fire still remains, and in a region of dense population and easy access, such as New Jersey, intensive and continuous pa-

trol alone is the final remedy. Last fall such a patrol in the deer-hunting sections on the open dates, following a similar effort in the two previous years, proved that open fires were quite unnecessary and that the sportsman was more comfortable and more conveniently accommodated without the wood fires that previously had been deemed indispensable. Men and funds for similar work during the fishing season and when the automobile picnicker is in the wooded sections appears to offer the only effective way of bringing warning and suggestion to the out-of-doors pleasure seeker in general. It is recognized that this menace is due to ignorance in the main and that the remedy is prompt when those offending realize the facts, but ordinary avenues of publicity will not suffice.

Table 3—Forest Fires by Causes and Counties, November 1, 1917, to June 30, 1918.

COUNTY.	Number.										Totals.	
	Locomotive.		Brush Burning.		Smokers.		Miscellaneous.		Unknown.			
	FF	eF	FF	eF	FF	eF	FF	eF	FF	eF		
North Jersey—												
Bergen,	8	6	6	3	6	3	2	2	7	1	29	15
Hunterdon,	2	1	....	1	1	1	....	1	....	....	3	4
Morris,	18	5	12	7	26	6	6	1	28	7	90	26
Passaic,	16	8	1	....	16	7	1	1	3	4	37	20
Somerset,	4	2	3	....	6	....	1	3	8	3	22	8
Sussex,	13	3	2	1	5	3	....	2	4	....	24	9
Union,	2	1	2	....	2	....	....	....	5	....	11	1
Warren,	6	13	3	....	2	....	2	....	5	3	18	16
Fires that burned in more than 1 county,	....	....	1	....	....	....	1	....	....	....	2	...
Totals,	69	39	30	12	64	20	13	10	60	18	236	99
South Jersey—												
Atlantic,	23	13	7	4	8	4	2	2	22	6	62	29
Burlington,	3	....	3	....	5	....	....	....	7	2	18	2
Camden,	6	9	3	3	6	1	1	....	7	1	23	14
Cape May,	8	6	5	....	4	1	....	....	5	1	22	8
Cumberland,	8	2	8	1	13	2	3	....	25	4	57	9
Gloucester,	3	....	2	1	8	....	1	1	1	1	15	3
Mercer, .....	....	....	....	3	....	....	....	....	....	1	...	4
Middlesex,	3	1	3	1	5	1	2	....	24	2	37	5
Monmouth,	11	9	2	2	7	1	2	....	9	1	31	13
Ocean,	11	13	3	3	4	3	2	2	14	5	34	26
Salem, .....	....	....	1	1	1	2	....	1	....	....	2	4
Fires that burned in more than 1 county,	....	....	....	....	1	....	....	....	1	....	2	...
Totals,	76	53	37	19	62	15	13	6	115	24	303	117
State Totals,.	145	92	67	31	126	35	26	16	175	42	539	216
Per cent. of State Totals,	31		13		21		16		29		...	...

FF—Forest Fires.
eF—Embryo Fires (less than 2 acres).

THE FOREST FIRE SERVICE.

The State force.—The improving efficiency in local fire control, due mostly to the work of the State wardens, has continued again this year. (See p. 77.) Despite a marked increase of the activity of the State wardens in actual fire fighting, the record of violations handled and disposed of evidences the growing hold on that problem. (See p. 93.) In addition, particular effort has been made by means of two special posters to reach the smokers and those burning brush, with information and warning. Aside from personal activities, the State firewarden's office and force has also answered frequent calls for special war work in connection with Liberty Loan, wood fuel, war timber supply, and other similar activities.

Local organization.—To meet developing local needs the fire service has been installed in seven additional townships as follows: Alexandria, Clinton, East Amwell, Franklin, Holland, and West Amwell in Hunterdon County, and Montgomery in Somerset County. Also, because of its political division the area of old Pompton township, Passaic County, has been re-allotted to embrace the three new boroughs. The service, therefore, is active in 156 townships with 352 local wardens on the list. Because of the three-year term, first instituted a year ago, changes in personnel have been rare and local efficiency, therefore, has been advanced by the stability. The effectiveness of this local organization is apparent from the fact that year by year the average area burned per fire is going down. In view of the facts outlined on page 74 this is the more creditable this year. Moreover, in the face of an always increasing number of fires reported started, the proportion cut off before they become serious remains as great or greater as time goes on. To stop fires from starting, a different type of organization must be made available—not to supplant that now in operation, but to supplement it. (See p. 85.)

Lookouts.—The McKeetown Lookout Station, Atlantic County, installed a year ago by the co-operation of the City of Atlantic City, has amply justified the expectation that it would prove invaluable in fire control in the area within its scope.

In co-operation with the Federal Forest Service, by which \$250 of the necessary funds were furnished under the so-called "Weeks' Law," a lookout tower and telephone connection are under construction on the Kittatinny Ridge near Culvers Lake in Sussex County.

The lookout station at Batsto, Burlington County, and that at Cedar Pond, Passaic County (see p. 85) again have been in operation during the fire season.

Rural mail patrol.—The co-operative arrangement under which the Postmaster-General designated all rural mailmen as forest fire patrolmen has been continued and has given valuable assistance to the local force by prompt notice of fires.

Federal patrol.—The fund of \$2,000 allotted for forest fire patrol and lookout work in North Jersey from the so-called "Weeks' Law Fund" has been continued. Under this allotment during November, 1917, and since April 15th, 1918, the watcher at the Cedar Pond Lookout Station has been on duty.

During November a patrol of eleven men, partly by motor and partly on foot, was maintained in the areas most frequented by gunners. With the opening of April the single motor patrolman heretofore employed took up work again.

As has so often been pointed out before, this patrol has made available in North Jersey an adjunct of the firewarden system whose value is only slightly measured by the numerous fires reported promptly to the proper warden. Its worth as a fire preventive agency is the far more important element. Unquestionably, in areas patrolled, fewer fires have started from causes which can be controlled by individual carefulness. (See p. 85.)

Special railroad co-operation.—During the year a plan of co-operation has been worked out with the Erie Railroad to care for the situation along its Greenwood Lake Division where forest fire conditions have always been extremely bad. Under the plan the entire danger area will be made safe by clearing and burning along the right-of-way for a distance of 200 feet from the track. In times of extreme fire danger this work will be supplemented by motor patrol to follow each locomotive movement over that portion of the line where the forest fire menace is great.

Fig. 19. Fire Lookout Tower.

Fig. 20. Fire Patrolman.



Value of the Service.—The service annually rendered in forest protection is impossible to calculate in concrete figures. No estimate of the potential power for damage by the small fire is possible nor attempted. It is certain, however, that fire protection, and that alone, will guarantee to the State a forest cover and forest productivity to the million or more acres which will grow trees profitably but are unsuited to any other use.

There is, however, a concrete measure of additional worth in the work done in forest protection. In the eight months just passed, improved property to the value of more than \$200,000 has been saved from sure injury, if not destruction, by forest fire. The list of property saved which is known to be far from complete, includes dwellings, farm buildings, industries, cranberry bogs and buildings, and farm and forest products.

Needs of the Service.—A year ago the need for an enlarged State force to provide for forest fire lookout and patrol service was emphasized. The effectiveness of the existing system of local wardens and fire fighters is attested by the record of their work. (See p. 83.) But the sphere of their activity and influence is largely limited to the control of fires already burning.

The number of fires which start is annually increasing. Despite the most prompt and efficient attention, serious and costly fires will occur when woods and weather conditions are dangerous so long as fires are started in large numbers.

The conditions noted on page 74 with regard to the increasing fire menace are but an abnormal hastening of a situation which has been developing heretofore. New Jersey's rural population is increasing rapidly. Her good roads and splendid accessibility by steam and electric lines open even the remoter sections to the vast population of her own and neighboring cities, the densest organized population in the world. Her resorts attract this element into and across the wilderness areas in numbers unique for such localities. From such conditions arise a permanently increasing source of forest fires.

Further than this, effectual fire protection in its earlier stages of itself creates an increased menace. Many small fires may be started and put out in areas where previously one large fire, though it destroyed its value, made the larger area temporarily

immune. Recuperation of the formerly abused and continually burned woodlands involves the dense and more inflammable conditions always found where young forest growth and underbrush predominate. For the next quarter century, until the growing forest has recovered beyond the period of excessive younger stock, the State must carry this added burden as the price of past indifference and neglect.

To cope with these conditions two means must be provided: There must be permanent watch to assure prompt notice of all fires which start, so that they may be cut off before they can escape control; there must be agents in the danger zones to caution all against the danger and to apprehend those whose carelessness, indifference, or ignorance contribute to the needless annual wastage of the forest resources and possibilities of the State. Fire lookouts and patrol have done, and are doing this where they have been made available by the interest of the Federal Government and of private or municipal agencies. The State should not be made dependent on such sources for the means to serve her interests. It cannot rely upon them for any general remedy.

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Table 4—Forest Fires by Counties and Townships, November 1, 1917, to June 30, 1918.

County and Township.	Number.		Acres Burned.	Loss to Forests and Other Property.	Cost to Extinguish.	Paid by. ^a		
	Forest Fires.	Embryo Fires.				Township.	State.	Offenders.
Atlantic County—								
Absecon (City),...	1	.....	40	\$10	.....	.....	.....	.....
Buena Vista,	11	3	1208	490	\$108.65	\$36.76	\$36.76	\$45.80
Egg Harbor,	9	2	484	210	168.40	77.20	77.20	14.00
Egg Harbor (City)	2	.....	10	5	21.00	7.00	7.00	7.00
Folsom, .....	.....	.....	.....	.....	.....	.....	.....	.....
Galloway,	20	9	1420	1090	292.15	100.45	100.45	101.25
Hamilton,	2	2	1150	950	54.67	4.50	4.50	46.87
Hammonton,	4	4	727	360	182.89	64.44	64.45	54.50
Linwood, .....	.....	.....	.....	.....	.....	.....	.....	.....
Mullica,	8	2	3696	3703	351.35	4.75	4.75	346.85
Northfield (City),	.....	.....	.....	.....	.....	.....	.....	.....
Pleasantville,	1	.....	5	.....	.....	.....	.....	.....
Port Republic, ...	.....	.....	.....	.....	.....	.....	.....	.....
Weymouth,	6	6	846	365	119.78	54.39	54.39	21.00
Total,	62	28	9586	\$7241	\$1298.89	\$349.49	\$349.50	\$637.27
Bergen County—								
Franklin,	8	6	57	\$208	\$143.00	\$33.50	\$33.50	\$76.00
Hohokus,	6	.....	2394	1769	275.00	137.51	137.49	.....
Montvale (Boro.),	3	.....	70	85	11.00	.....	.....	15.00
Oakland (Boro.),..	2	1	1405	1205	18.00	.....	.....	18.00
Park Ridge (Boro)	2	.....	30	15	18.00	3.00	3.00	12.00
Ridgefield (Boro),	7	7	58	34	30.10	13.55	13.55	3.00
Woodcliff Lake, ..	4	1	58	45	29.00	10.00	10.00	9.00
Total.	32	15	4072	\$3361	\$524.10	\$197.56	\$197.54	\$133.00
Burlington County—								
Bass River,	3	.....	13	30	\$30.10	\$15.05	\$15.05	.....
Evesham,	2	.....	13	5	10.25	.....	.....	\$10.25
Medford, .....	.....	.....	.....	.....	.....	.....	.....	.....
New Hanover, ...	2	.....	165	155	27.00	13.50	13.50	.....
Pemberton,	8	1	1630	475	177.55	78.78	78.77	30.00
Shamong,	1	.....	5	10	6.00	.....	.....	6.00
Southampton, ...	.....	.....	.....	.....	.....	.....	.....	.....
Tabernacle,	1	.....	20	20	7.80	3.90	3.90	.....
Washington, .....	.....	.....	.....	.....	.....	.....	.....	.....
Woodland,	2	1	270	45	13.10	6.55	6.55	.....
Total,	19	2	2116	\$740	\$271.80	\$117.78	\$117.77	\$46.25

Table 4—Forest Fires by Counties and Townships, November 1, 1917, to June 30, 1918—Continued.

County and Township.	Number.		Acres Burned.	Loss to Forests and Other Property.	Cost to Extinguish.	Paid by. ^a		
	Forest Fires.	Embryo Fires.				Township.	State.	Offenders.
Camden County—								
Berlin,	1	.....	10	\$5	\$4.00	\$2.00	\$2.00	\$3.00
Chesilhurst Boro., .....	.....	.....	.....	.....	.....	.....	.....	.....
Clementon,	4	1	65	35	40.00	16.00	16.00	3.00
Delaware,	1	1	50	25	13.00	6.50	6.50	5.00
Gloucester,	2	3	10	105	18.45	5.60	5.60	16.70
Voorhees, .....	.....	.....	.....	.....	.....	.....	.....	.....
Waterford,	6	.....	616	2556	112.40	23.65	23.65	71.10
Winslow,	9	9	479	310	152.25	22.74	22.76	107.75
Total,	28	14	1230	\$3036	\$340.10	\$76.49	\$76.51	\$211.55
Cape May County—								
Dennis,	3	.....	165	\$85	\$55.75	\$6.87	\$6.88	\$45.00
Lower,	1	3	3	.....	16.00	2.00	2.00	12.00
Middle,	10	5	384	372	116.60	48.43	48.42	69.25
Upper,	6	.....	184	235	89.54	18.77	18.77	54.00
Woodbine (Boro.),	2	.....	105	35	18.90	7.55	7.55	10.00
Total,	22	8	841	\$727	\$346.79	\$83.62	\$83.62	\$190.25
Cumberland Co.—								
Commercial,	3	.....	730	\$530	\$87.85	\$15.43	\$15.42	\$57.00
Deerfield,	6	.....	291	145	31.00	5.75	5.75	65.00
Downe,	10	.....	3557	3315	296.10	87.70	87.70	120.70
Fairfield,	1	2	10	10	17.00	4.00	4.00	9.00
Landis,	10	5	312	475	163.70	76.22	76.23	11.25
Lawrence,	2	.....	285	150	23.25	4.63	4.62	14.00
Maurice River, ..	10	.....	4263	928	243.48	103.94	103.94	61.00
Millville (City),...	17	2	535	347	234.90	110.44	110.47	9.00
Total,	59	9	9983	\$5900	\$1097.28	\$408.11	\$408.13	\$346.95
Gloucester County—								
Clayton (Boro.),...	1	.....	7	\$3	\$8.00	\$4.00	\$4.00	.....
Elk, .....	.....	.....	.....	.....	.....	.....	.....	.....
Franklin,	8	2	1134	590	91.95	40.46	40.48	\$23.00
Monroe,	4	1	145	95	39.95	1.97	1.98	55.00
Washington,	2	14	10	17.00	8.50	8.50
Total,	15	3	1300	\$698	\$156.90	\$54.93	\$54.96	\$78.00

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Table 4—Forest Fires by Counties and Townships, November 1, 1917, to June 30, 1918—Continued.

County and Township.	Number.		Burned.	to Forests and or Property.	to Extinguish.	Paid by.*		
	Fires.	to Fires.				Township.	State.	Offenders.
Hunterdon County—								
Alexandria,								
Bethlehem,					85	\$12.67	\$19.68	
Clinton,								
East Amwell,								
Franklin,								
Holland,								
Lebanon,								
Tewksbury,					00	2.50	2.50	
West Amwell, ...					00	.50	.50	
Total,					85	\$15.67	\$15.68	
Mercer County—								
Hopewell,								
Princeton,					00	\$6.50	\$6.50	\$20.00
Total,	2				\$19.00	\$6.50	\$6.50	\$20.00
Middlesex County—								
East Brunswick,...	10		511	\$290	\$68.95	\$34.42	\$34.42	\$30.00
Madison,	11	3	622	523	\$16.00	98.45	98.45	25.00
Monroe,	1		263	110				
Sayreville,	12	2	181	115	86.20	48.09	48.11	
South Brunswick,...	2		190	160	18.00	8.00	8.00	
Total,	37	5	1667	\$3238	\$387.95	\$183.96	\$183.99	\$55.00
Monmouth County—								
Atlantic,								
Freehold,	3		1550	\$1600	\$115.65	\$57.82	\$57.83	
Howell,	23	7	475	1670	\$90.12	101.97	101.97	\$194.42
Middletown,	1		10	10	8.00	4.00	4.00	
Ocean,	4		38	40	20.75	7.88	7.87	5.00
Shrewsbury,	1	5	3		30.50	4.00	4.00	\$22.50
Wall,		1						10.00
Total,	52	13	2076	\$3823	\$570.02	\$175.68	\$175.67	\$231.92

Table 4—Forest Fires by Counties and Townships, November 1, 1917, to June 30, 1918—Continued.

County and Township.	Number.		Acres Burned.	Loss to Forests and Other Property.	Cost to Extinguish.	Paid by. ^a		
	Forest Fires.	Embryo Fires.				Township.	State.	Offenders.
Morris County—								
Boonton,	7	3	67	\$37	\$84.80	\$26.75	\$26.75	\$47.80
Chester,	2	1	25	16	19.75	4.00	4.00	19.75
Denville,	8	.....	201	162	125.70	51.60	51.60	22.50
Hanover,	14	3	1579	2290	324.70	97.71	97.69	139.30
Jefferson,	4	6	86	55	118.20	53.60	53.60	60.00
Mendham,	2	0	20	75	16.50	8.25	8.25	.....
Montville,	9	2	117	85	147.00	49.75	49.75	56.00
Morris,	7	4	46	42	174.75	53.62	53.63	72.00
Mt. Arlington, ...	3	1	73	295	68.00	34.00	34.00	.....
Mt. Olive,	2	2	17	96	58.80	19.90	19.90	20.00
Passaic, .....	.....	.....	.....	.....	.....	.....	.....	.....
Pequannock,	5	.....	258	280	137.50	21.00	21.00	95.50
Randolph,	10	1	199	515	210.90	94.20	94.20	40.50
Rockaway,	10	2	830	1135	336.80	159.36	159.34	45.00
Roxbury,	1	1	5	.....	6.00	1.00	1.00	5.00
Washington,	7	.....	155	155	129.20	64.60	64.60	.....
Total,	91	26	3678	\$5238	\$1958.10	\$789.34	\$739.31	\$623.85
Ocean County—								
Berkeley,	3	1	5106	\$2010	\$106.75	.....	.....	\$108.40
Brick,	9	3	244	635	140.00	\$58.00	\$58.00	25.00
Dover,	4	1	25	60	41.50	17.25	17.25	7.00
Eagleswood, .....	.....	1	.....	5	6.00	.....	.....	6.00
Jackson,	5	1	888	830	190.50	73.00	73.00	69.50
Lacey,	1	5	2000	1000	53.80	5.86	5.89	42.05
Lakewood,	6	1	82	70	58.60	15.20	15.20	28.20
Little Egg Harbor, .....	.....	.....	.....	.....	.....	.....	.....	.....
Manchester,	6	10	1500	885	155.40	9.00	9.00	137.40
Ocean, .....	.....	1	.....	.....	5.00	2.50	2.50	.....
Plumstead,	3	.....	773	250	14.00	7.00	7.00	.....
Stafford,	1	.....	125	100	11.50	5.75	5.75	.....
Union,	2	2	1030	875	66.20	27.30	27.30	21.60
Total,	40	26	11769	\$6720	\$849.25	\$220.86	\$220.89	\$445.15
Passaic County—								
Pompton,	30	13	2442	\$2238	\$483.25	\$188.42	\$188.43	\$133.15
West Milford,	11	7	191	143	170.37	31.14	31.13	113.10
Total,	41	20	2633	\$2381	\$653.62	\$219.56	\$219.56	\$246.25

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Table 4—Forest Fires, by Counties and Townships, November 1, 1917, to June 30, 1918—Continued.

County and Township.	Number.					Paid by. ^a		
	Forest Fires.	Embryo Fires.	Acres Burned.	Loss to Forests and Other Property.	Cost to Extinguish.	Township.	State.	Offenders.
Salem County—								
Alloway,	1	1	15	.....	\$11.00	\$5.50	\$5.50	.....
L. Alloways Creek,	1	.....	10	\$10	16.60	.....	.....	\$16.60
Pittsgrove, .....	.....	1	.....	.....	4.00	.....	.....	9.60
Quinton,	1	1	1200	2500	150.40	3.25	3.25	143.90
Upper Pittsgrove, .....	.....	1	.....	.....	8.00	.....	.....	10.00
Total,	3	4	1225	\$2510	\$190.00	\$8.75	\$8.75	\$180.10
Somerset County—								
Bernard,	9	5	85	\$144	\$206.50	\$65.50	\$65.50	\$75.50
Bridgewater,	3	1	18	20	33.00	16.50	16.50	.....
Hillsborough, .....	.....	.....	.....	.....	.....	.....	.....	.....
Montgomery, .....	.....	.....	.....	.....	.....	.....	.....	.....
North Plainfield,	8	.....	580	572	152.30	68.65	68.65	15.00
Warren,	2	2	16	5	43.80	20.90	20.90	2.00
Total,	22	7	699	\$741	\$435.60	\$171.55	\$171.55	\$92.50
Sussex County—								
Andover, .....	.....	.....	.....	.....	.....	.....	.....	.....
Byram, .....	.....	2	.....	.....	\$12.00	.....	.....	\$12.00
Frankford, .....	.....	.....	.....	.....	.....	.....	.....	.....
Franklin (Boro.),	1	.....	100	\$25	19.00	\$9.50	\$9.50	.....
Green, .....	.....	.....	.....	.....	.....	.....	.....	.....
Hampton, .....	.....	.....	.....	.....	.....	.....	.....	.....
Hardyston,	8	1	59	69	64.10	3.00	3.00	108.10
Hopatcong, .....	.....	1	.....	.....	4.00	.....	.....	4.00
Montague,	1	2	25	25	16.65	8.33	8.32	.....
Ogdensburg Boro.	4	2	87	162	26.00	.....	.....	26.00
Sandyston,	2	.....	11	8	14.60	5.30	9.30	.....
Sparta,	7	.....	260	425	97.40	44.55	44.55	8.30
Stillwater, .....	.....	.....	.....	.....	.....	.....	.....	.....
Vernon, .....	.....	.....	.....	.....	.....	.....	.....	.....
Walpack, .....	.....	1	.....	.....	8.00	4.00	4.00	.....
Wantage,	1	.....	75	35	20.00	10.00	10.00	.....
Total,	24	9	617	\$749	\$281.75	\$84.68	\$88.67	\$146.40

Table 4—Forest Fires by Counties and Townships, November 1, 1917, to June 30, 1918—Concluded.

County and Township.	Number.		Acres Burned.	Loss to Forests and Other Property.	Cost to Extinguish.	Paid by. ²		
	Forest Fires.	Embryo Fires.				Township.	State.	Offenders.
Union County—								
Mountainside,	3	.....	90	\$113	\$84.70	\$42.35	\$42.35	.....
New Providence, ..	6	1	694	550	45.70	7.75	7.75	\$33.20
Scotch Plains, ....	.....	.....	.....	.....	.....	.....	.....	.....
Springfield, .....	.....	.....	.....	.....	.....	.....	.....	.....
Total,	9	1	784	\$663	\$130.40	\$50.10	\$50.10	\$33.20
Warren County—								
Allamuchy,	2	2	6	\$3	\$33.00	\$16.50	\$16.50	.....
Blairstown,	2	.....	44	75	16.25	6.50	6.50	\$3.25
Franklin, .....	.....	.....	.....	.....	.....	.....	.....	.....
Hardwick, .....	.....	.....	.....	.....	.....	.....	.....	.....
Harmony, .....	.....	.....	.....	.....	.....	.....	.....	.....
Hope,	2	.....	408	405	99.20	7.00	7.00	85.20
Independence, .....	.....	.....	.....	.....	.....	.....	.....	.....
Knowlton,	7	11	301	487	193.48	42.15	42.15	109.18
Mansfield, .....	.....	.....	.....	.....	.....	.....	.....	.....
Pahaquarry,	1	2	25	25	26.60	13.30	13.30	.....
Washington,	3	1	31	49	43.95	21.99	21.96	.....
White,	2	.....	16	15	9.00	.....	.....	9.00
Total,	19	16	831	1059	\$421.48	\$107.44	\$107.41	\$206.63
State Total,	553	214	55282	\$51529	\$9963.38	\$3265.07	\$3276.14	\$3923.77

¹ This total is greater than the actual number (539), because in 14 cases one fire burned in two or more townships.

² The sum of these columns often differs from the "Cost to Extinguish" item, because a fine was larger than the bill, or a bill was withdrawn, etc.

VIOLATIONS OF THE LAW.

(See Tables 4 and 5.)

Penalties imposed on those who are responsible for forest fires, or who use fire carelessly or illegally, are apparently the most potent deterrent of repetition by the individual or in the community. Continued and emphatic emphasis, therefore, has been put upon the effort to establish the origin of New Jersey's fires. It has, however, been recognized from the first that arbitrary dealing with the situation would often impose unnecessary hardships if not actual injustice. The effort, therefore, has been to deal with each case individually in the way which promised best to prevent recurrence of the same difficulty, locally. This treatment of the matter slowly but surely is curtailing careless and reckless use of fire in the communities where close supervision has been possible. This year, with the limited force, the responsibility has been definitely fixed and the offender penalized for 45 per cent of the fires. The total number of violations of the law fixed (388) is little less for the eight months' period than for the full year in any previous record.

It is felt that the preliminary stage of educational work in this respect has now been passed. Justifiable ignorance of the requirements of the law requiring permits and excusable ignorance of the danger in using fire and smoking materials no longer can be recognized. On this assumption the policy of leniency which has previously prevailed has been definitely set aside and far more rigorous penalizing for forest fires has superseded, to emphasize the penalty involved as well as to continue the warning heretofore sought through this feature of the work.

There still remain 222 cases from the past year to be disposed of, a larger proportion than usual because of the mid-season time of closing the record. Of the 143 cases pending from the two previous years but 31 are still unsettled.

The penalties collected during the year amounted to \$2,518.68, of which the railroads paid \$1,656.92, and other agencies \$861.68.

Table 5—Violations of the Forest Fire Law, November 1, 1917, to June 30, 1918.

DATE	COUNTY AND TOWNSHIP.	OFFENDER.	OFFENSE.	SETTLEMENT.
	<i>Atlantic County—</i>			
April 1,	Buena Vista,	A. S. Walker,	Saw mill engine set fire,	Paid firewarden's bill, \$7.80.
April 26,	Buena Vista,	Jacob Tarboy,	Allowed a brush fire to escape, ...	Paid \$25 fine.
	Buena Vista,	Atlantic City R. R.,	3 fires set by locomotives,	Paid firewarden's bills, \$11.00.
	Buena Vista,	Pennsylvania R. R.,	1 fire set by locomotive,	Pending.
March 11,	Egg Harbor,	Wm. Hollis,	Set fire without a permit and al- lowed it to escape,	Released with warning.
	Egg Harbor,	O. E. Kencher,	Allowed a brush fire to escape, ...	Paid fine, \$10.00.
March 30,	Egg Harbor,	Atlantic City R. R.,	1 fire set by locomotive,	Pending.
	Egg Harbor City,	Pennsylvania R. R.,	1 fire set by locomotive,	Pending.
April 5,	Galloway,	Chas. Guerrieri,	Set fire without a permit and al- lowed it to escape,	Dropped—insufficient evidence.
	Galloway,	Jno. Turner,	Set fire without a permit,	Paid fine, \$10.00.
April 26,	Galloway,	Atlantic City R. R.,	2 fires set by locomotives,	Paid firewarden's bills, \$10.00.
	Galloway,	Atlantic City R. R.,	1 fire set by locomotive,	Pending.
	Galloway,	Pennsylvania R. R.,	5 fires set by locomotives,	Paid firewarden's bills, \$33.00.
	Galloway,	Pennsylvania R. R.,	1 fire set by locomotive,	Dropped—insufficient evidence.
	Galloway,	Pennsylvania R. R.,	7 fires set by locomotives,	Pending.
December 6,	Hamilton,	Joa. Vetri,	Allowed a brush fire to escape, ...	Paid fine, \$5.00.
	Hamilton,	Atlantic City R. R.,	1 fire set by locomotive,	Paid firewarden's bill, \$41.87.
January 12,	Hammononton,	Angelo Del Vecchio,	Set fire without a permit,	Paid fine, \$2.00.
April 6,	Hammononton,	Jno. Hartley,	Allowed a brush fire to escape, ...	Paid fine, \$27.50.
April 6,	Hammononton,	John Sintner,	Son set fire,	Dropped—offender mentally irre- sponsible.
	Hammononton,	Pennsylvania R. R.,	2 fires set by locomotives,	Pending.
May 2,	Weymouth,	John Dougherty,	Set fire without a permit,	Paid fine, \$10.00.
	Weymouth,	Atlantic City R. R.,	2 fires set by locomotives,	Cases dropped—township bills too tardy.
	Weymouth,	Atlantic City R. R.,	2 fires set by locomotives,	Pending.
	<i>Bergen County—</i>			
November 8, ...	Franklin,	J. H. Blauvelt,	Set fire without a permit and al- lowed it to escape,	Offender burned to death—no ac- tion taken.
	Franklin,	New York, Susquehanna and Western R. R.,	9 fires set by locomotives,	Pending.
November 13, ...	Hobokus,	Mary M. Post,	Set illegal backfire,	Released with a warning.
	Oakland,	Stephen H. Welling,		
	Oakland,	New York, Susquehanna and Western R. R.,	2 fires set by locomotives,	Pending.

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March 20,	Ridgefield,	Mrs. W. H. Lockington, ..	Set fire without a permit and al- lowed it to escape,	Paid fine, \$3.00.
April 5	Ridgefield,	F. Kaperscyc,	Set fire without a permit,	Dropped—offender in military ser- vice.
April 5	Ridgefield,	Thomas Smith,	Set fire without a permit,	Pending.
March 17,	Parkridge,	C. W. Kay,	Set fire without a permit and al- lowed it to escape,	Paid fine, \$12.00.
March 30,	Montvale,	Mrs. A. M. Morris,	Set fire without a permit,	Pending.
March 23,	Woodcliff Lake,	E. Groclande,	Set fire without a permit and al- lowed it to escape,	Paid fine, \$5.00.
April 5,	Woodcliff Lake,	J. B. Menville,	Allowed a brush fire to escape, ...	Pending.
March 19,	Woodcliff Lake,	Romaine Hener,	Set fire without a permit and al- lowed it to escape,	Pending.
March 27,	Burlington County— Evesham,	Frank Traino,	Set fire without a permit and al- lowed it to escape,	Released with a warning.
April 6,	Evesham,	Peter Schafer,	Allowed a brush fire to escape, ...	Paid fine, \$10.25.
April 1,	Pemberton,	E. O. Lippincott,	Set fire without a permit and al- lowed it to escape,	Pending.
March 30,	Pemberton,	Pennsylvania R. R.,	1 fire set by locomotive,	Paid firewarden's bills, \$20.00.
	Shamong,	Samuel Gager,	Burned charcoal pit without a per- mit,	Released with a warning.
	Shamong,	New Jersey Central R. R., ..	1 fire set by locomotive,	Pending.
April 3,	Camden County— Berlin,	F. Chavanne,	Set fire without a permit,	Paid fine, \$3.00.
March 17,	Clementon,	Atlantic City R. R.,	1 fire set by locomotive,	Pending.
	Delaware,	R. C. Hamblen,	Set fire without a permit and al- lowed it to escape,	Paid fine, \$5.00.
April 6,	Gloucester,	Samuel Wilson,	Set fire without a permit and al- lowed it to escape,	Pending.
April 17,	Gloucester,	Subrick Grabulski,	Set fire without a permit,	Pending.
April 3,	Waterford,	Wm. Galliger,	Set fire without a permit,	Paid fine, \$3.00.
April 3,	Waterford,	F. F. Dittess,	Set fire without a permit,	Paid fine, \$3.00.
April 26,	Winslow,	Wm. Green,	Set fire without a permit and al- lowed it to escape,	Pending.
May 8,	Winslow,	Hydraulic Press Brick Co., ..	Locomotive set fire,	Pending.
	Winslow,	Atlantic City R. R.,	13 fires set by locomotives,	Paid firewarden's bills, \$92.75.
March 18,	Cape May County— Dennis,	Emma Collins,	Set fire without a permit and al- lowed it to escape,	Paid fine, \$10.00.
	Dennis,	Pennsylvania R. R.,	1 fire set by locomotive,	Pending.
	Lower,	Atlantic City R. R.,	3 fires set by locomotives,	Paid firewarden's bills, \$12.00
March 4,	Middle,	D. L. Spooner,	Set fire without a permit,	Paid fine, \$1.00.
March 19,	Middle,	Roscoe Spaulding,	Allowed a brush fire to escape, ...	Paid fine, \$10.00.
March 18,	Middle,	Mrs. E. S. Starr,	Set fire without a permit and al- lowed it to escape,	Pending.

Table 5—Violations of the Forest Fire Law, November 1, 1917, to June 30, 1918—Continued.

DATE.	TOWNSHIP. COUNTY AND	OFFENDER.	OFFENSE.	SETTLEMENT.
March 18,	Cape May County—Con. Middle,	Atlantic City R. R.,	3 fires set by locomotives,	Paid firewarden's bills, \$22.25.
	Middle,	Atlantic City R. R.,	1 fire set by locomotive,	Pending.
	Middle,	Atlantic City R. R.,	1 fire set by locomotive,	Dropped—insufficient evidence.
	Middle,	Pennsylvania R. R.,	2 fires set by locomotives,	Paid firewarden's bills, \$21.00.
April 7,	Upper,	Samuel Borden,	Set fire without a permit and allowed it to escape,	Pending.
	Upper,	Atlantic City R. R.,	2 fires set by locomotives,	Paid firewarden's bills, \$9.00.
	Upper,	Pennsylvania R. R.,	1 fire set by locomotive,	Pending.
April 5,	Cumberland County— Commercial,	Stephen Demus,	Set fire without a permit and allowed it to escape,	Pending.
December 7,	Deerfield,	Fred Herder,	Set fire without a permit,	Paid fine, \$5.00.
April 4,	Deerfield,	Jacob Yanklabitz,	Set fire without a permit,	Paid fine, \$5.00.
April 26,	Deerfield,	H. H. Gotheb,	Son set fire without a permit,	Pending.
April 15,	Deerfield,	Jos. Lischler,	Set fire without a permit and allowed it to escape,	Pending.
May 2,	Deerfield,	Frank Dembrynski,	Set fire without a permit and allowed it to escape,	Paid fine, \$10.00.
May 2,	Deerfield,	Wm. J. Lanning,	Set fire without a permit and allowed it to escape,	Pending.
April 24,	Deerfield,	O. Somers,	Set fire without a permit and allowed it to escape,	Paid fine, \$10.00.
April 6,	Downe,	New Jersey Central R. R.,	2 fires	Pending.
	Fairfield,	Geo. Cuff,	Set fire	Pending.
May 8,	Fairfield,	New Jersey Central R. R.,	1 fire	Pending.
	Landis,	Vineland Training School,	Fire & a permit	Pending.
April 26,	Landis,	Pennsylvania R. R.,	1 fire	Pending.
	Landis,	Pennsylvania R. R.,	2 fires	Paid firewarden's bill, \$3.33
April 26,	Maurice River,	M. Carl,	Set an illegal backfire and allowed it to escape,	Pending.
April 27,	Maurice River,	Charles Morse,	Set an illegal backfire and allowed it to escape,	Paid fine, \$10.00.
April 27,	Maurice River,	John Lupperger,	Set an illegal backfire and allowed it to escape,	Paid fine, \$10.00.
April 26,	Maurice River,	Mrs. Cassie Lupperger,	Set fire without a permit,	Pending.
April 29,	Maurice River,	C. C. Compton,	Set forest fire by careless smoking,	Released with a warning.
May 9,	Maurice River,	Mike and Steve Pernock,	Set fire without a permit,	Pending.
	Maurice River,	Pennsylvania R. R.,	1 fire set by locomotive,	Paid firewarden's bill, \$6.00.
	Millville,	Pennsylvania R. R.,	2 fires set by locomotives,	Pending.

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February 26,	Millville,	Pennsylvania R. R.,	1 fire set by locomotive,	Dropped—insufficient evidence.
March 3,	Gloucester County— Clayton,	Pennsylvania R. R.,	1 fire set by locomotive,	Dropped—insufficient evidence.
March 5,	Franklin,	David Sink,	Set forest fire by careless smoking,	Pending.
December 5,	Monroe,	Stephen Domokos,	Set fire without a permit and allowed it to escape,	Paid fine, \$10.00.
March 23,	Monroe,	Michael Trevilli,	Set fire without a permit and allowed it to escape,	Paid fine, \$10.00.
March 23,	Monroe,	John Polan,	Set fire without a permit,	Paid fine, \$5.00.
March 23,	Monroe,	Joa. Slobodzian,	Set fire without a permit and allowed it to escape,	Pending.
March 23,	Monroe,	Atlantic City R. R.,	1 fire set by locomotive,	Dropped—township bill too tardy.
March 23,	Monroe,	Atlantic City R. R.,	1 fire set by locomotive,	Pending.
March 19,	Hantsdon County— Bethlehem,	Lehigh Valley R. R.,	2 fires set by locomotives,	Dropped—township bill too tardy.
March 24,	Mercer County— Princeton,	Frederick Highman,	Set fire without a permit and allowed it to escape,	Pending.
April 11,	Princeton,	Louis Corti,	Set fire without a permit and allowed it to escape,	Paid fine, \$10.00.
April 17,	Princeton,	Henry Dorham,	Set fire without a permit and allowed it to escape,	Pending.
April 6,	Middlesex County— East Brunswick,	Jacob Dalenback,	Set forest fire by careless smoking,	Pending.
March 28,	East Brunswick,	A. Keuhn,	Set fire without a permit and allowed it to escape,	Paid fine, \$10.00.
April 17,	East Brunswick, .....	.....	Set fire without a permit,	Paid fine, \$10.00.
May 3,	East Brunswick, .....	.....	Set fire without a permit,	Released with a warning.
November 1,	Madison, .....	.....	Set fire without a permit,	Paid fine, \$5.00.
April 18,	Madison, .....	.....	Set fire without a permit,	Pending.
April 18,	Madison, .....	.....	Set fire without a permit,	Released with a warning.
May 8,	Madison,	Co.,	Allowed a brush fire to escape,	Pending.
May 18,	Madison,	R.	Set forest fire by careless smoking,	Pending.
March 29,	Sayreville, .....	.....	4 fires set by locomotives,	Dropped—township bill too tardy.
March 29,	Monmouth County— Howell,	Bennett Gravel Co.,	2 fires set by locomotives,	Pending.
March 29,	Howell,	Brinton Cook,	Set fire without a permit and allowed it to escape,	Paid fine, \$10.00.
March 29,	Howell,	New Jersey Central R. R.,	9 fires set by locomotives,	Paid firewarden's bill, \$92.55.
March 29,	Howell,	New Jersey Central R. R.,	4 fires set by locomotives,	Pending.
March 29,	Howell,	Pennsylvania R. R.,	1 fire set by locomotive,	Paid firewarden's bill, \$5.35.
March 29,	Howell,	Pennsylvania R. R.,	2 fires set by locomotives,	Pending.
March 29,	Middletown,	Frank Braach,	Set fire without a permit,	Pending.
April 27,	Ocean,	New Jersey Central R. R.,	1 fire set by locomotive,	Pending.

Table 5—Violations of the Forest Fire Law, November 1, 1917, to June 30, 1918—Continued.

DATE.	COUNTY AND TOWNSHIP.	OFFENDER.	OFFENSE.	SETTLEMENT.
March 19,	Monmouth County—Con. Shrewsbury,	Mrs. O. A. Porter,	Set fire without a permit and allowed it to escape,	
November 27, ...	Shrewsbury,	New Jersey Central R. R.,	3 fires set by locomotives,	\$20.00.
April 6,	Wall,	John Kessler,	Set fire without a permit,	
April 6,	Wall,	J. W. Newman,	Set fire without a permit,	
April 6,	Wall,	J. H. Wooley,	Set fire without a permit,	
April 6,	Wall,	Jacob Thompson,	Set fire without a permit,	
November 10, ...	Morris County— Boonton,	Geo. Pichtner,	Set forest fire by careless smoking,	Paid fine, \$27.80.
April 26,	Boonton,	J. H. De Poe,	Set fire without a permit and allowed it to escape,	Paid fine, \$10.00.
May 1,	Boonton,	Pietro Simiboldi,	Set fire without a permit and allowed it to escape,	Pending.
June 17,	Boonton,	Pietro Simiboldi,	Set fire without a permit,	Pending.
June 17,	Boonton,	Clarence de Camp,	Set fire without a permit,	Pending.
April 22,	Boonton,	Clarence de Camp,	Set fire without a permit,	Pending.
April 27,	Chester,	Isaac S. Hoffman,	Set fire without a permit, smoking,	Paid firewarden's bill, \$9.75.
March 29,	Denville,	D. L. & W. R. R., .....	.....	Pending.
March 30,	Denville,	J. H. Fordyce, .....	.....	Pending.
.....	Denville,	Peter Reus, .....	.....	Pending.
May 16,	Denville,	Oscar Krats,	Set fire without a permit,	Pending.
June 26,	Denville,	Dover Advertising Co.,	1 fire set by locomotive,	Pending.
.....	Denville,	D. L. & W. R. R.,	1 fire set by locomotive,	Paid firewarden's bill, \$18.00.
November 9, ...	Hanover,	D. L. & W. R. R.,	Steam roller sparks set forest fire,	Pending.
April 2,	Hanover,	Charles Boulton,	Set fire without a permit,	Released because of the patriotic efforts of the operators of the roller.
April 2,	Hanover,	J. G. Bell,	Set fire without a permit,	Paid fine, \$5.00.
March 30,	Hanover,	Josef Nemes,	Set fire without a permit and allowed it to escape,	Released with a warning.
March 24,	Hanover,	Geo. Chambers,	Set fire without a permit,	Pending.
June 24,	Hanover,	Mt. Lakes Co., Inc.,	Set fire without a permit,	Pending.
.....	Hanover,	D. L. & W. R. R.,	3 fires,	Paid firewarden's bill, \$33.30.
.....	Hanover,	D. L. & W. R. R.,	1 fire,	Pending.
November 10, ...	Hanover,	Morrisdown & Erie R. R.,	3 fires,	Pending.
.....	Jefferson,	T. L. Winterbottom,	Left watch,	Pending.

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November 8,	Jefferson,	Elizabeth Chamberlain,	Set fire without a permit and allowed it to escape,	Paid fine, \$5.00. Pending.
March 30,	Jefferson,	Jas. Hough, Susquehanna and Western R. R.,	Set fire without a permit,	
April 15,	Montville,	J. H. Millidge,	2 fires set,	Dropped—township bills too tardy.
April 2,	Montville,	D. L. & W. R. R.,	3 fires set,	Paid fine, \$15.00.
April 6,	Morris,	A. H. Pierson,	Set fire and allowed,	Paid firewarden's bills, \$41.00.
April 28,	Morris,	Mrs. Michael Underhill,	Fire set,	Pending
March 30,	Morris,	John A. Blair,	Set fire and allowed,	Released with a warning.
April 2,	Mt. Olive,	D. L. & W. R. R.,	1 fire set,	Pending.
		Mrs. Daniel M. Lawler,	Set fire and allowed,	Paid firewarden's bill, \$15.00.
		Dr. T. E. Gartner,	Set fire and allowed,	Pending.
	Pequannock,	Wharton & Northern R. R.,	1 fire set by locomotive,	Pending.
	Pequannock,	New York, Susquehanna and Western R. R.,	1 fire set by locomotive,	Paid firewarden's bill, \$37.00.
March 24,	Randolph,	New York, Susquehanna and Western R. R.,	1 fire set by locomotive,	Dropped—insufficient evidence.
March 30,	Randolph,	Edw. Lowry,	1 fire set,	Pending.
April 28,	Randolph,	Walter Pitkin,	Set fire and allowed,	Pending.
April 2,	Randolph,	Alexander Rousell,	Set fire without a permit and allowed it to escape,	Pending.
November 16,	Rockaway,	Geo. Baird,	Set fire without a permit and allowed it to escape,	Pending.
November 27,	Rockaway,	Ino Shanger,	Set fire without a permit,	Released with a warning.
March 30,	Rockaway,	Raymond Peterson,	Set fire without a permit,	Paid fine, \$2.00.
April 28,	Rockaway,	Wm. Thompson and Pres,	Responsible for a forest fire,	Pending.
April 3,	Rockaway,		Set forest fire by careless smoking,	Pending.
June 8,	Rockaway,		Set fire without a permit,	Dropped—insufficient evidence.
March 29,	Rockaway,		Set fire without a permit,	Released with a warning.
March 29,	Rockaway,		Set fire without a permit,	Pending.
March 29,	Rockaway,	Wharton & Northern R. R.,	2 fires set by locomotives,	Paid firewarden's bills, \$18.00.
April 6,	Roxbury,	Robert Roane,	1 fire set by locomotive,	Dropped—insufficient evidence.
	Roxbury,	Dover Advertising Co.,	Allowed a brush fire to escape,	Pending
	Washington,	New Jersey Central R. R.,	Employee set fire without a permit and allowed it to escape,	Pending.
			1 fire set by locomotive,	Dropped—insufficient evidence.
April 15,	Ocean County— Berkeley,	W. Garrison,	Allowed a brush fire to escape,	Pending.
	Berkeley,	Pennsylvania R. R.,	1 fire set by locomotive,	Paid firewarden's bill, \$6.00.

Table 5—Violations of the Forest Fire Law, November 1, 1917, to June 30, 1918—Continued.

DATE.	COUNTY AND TOWNSHIP.	OFFENDER.	OFFENSE.	SETTLEMENT.
April 14,	Ocean County—Con.	Pennsylvania R. R.,	1 fire set by locomotive,	Pending.
April 20,	Berkeley,	Winfield Gant,	Fire set by children,	Pending.
November 14, ..	Brick,	New Jersey Central R. R.,	1 fire set by locomotive,	Pending.
April 8,	Dover,	Mark Zoole,	Set fire without a permit and allowed it to escape,	Paid fine, \$4.00.
April 8,	Eagleswood,	Frank Applegate,	Set fire without a permit and allowed it to escape,	Paid fine, \$25.00.
May 15,	Jackson,	Chester Lemming,	Set fire without a permit and allowed it to escape,	Pending.
June 19,	Jackson,	Wm. Greening,	Set fire without a permit and allowed it to escape,	Pending.
May 9,	Jackson,	New Jersey Central R. R.,	1 fire set by locomotive,	Pending.
May 9,	Jackson,	New Jersey Central R. R.,	2 fires set by locomotives,	Pending.
May 9,	Jackson,	New Jersey Central R. R.,	3 fires set by locomotives,	Pending.
May 9,	Jackson,	New Jersey Central R. R.,	4 fires set by locomotives,	Pending.
May 9,	Jackson,	New Jersey Central R. R.,	5 fires set by locomotives,	Pending.
May 9,	Jackson,	Pennsylvania R. R.,	1 fire set by locomotive,	Pending.
May 9,	Jackson,	Tuckerton R. R.,	2 fires set by locomotives,	Pending.
May 9,	Jackson,	Casper Molnar,	Set fire without a permit,	Pending.
May 9,	Jackson,	Tuckerton R. R.,	1 fire set by locomotive,	Pending.
November 4,	Pompton,	Frank Duffard,	Set fire without a permit,	Paid fine, \$5.00.
November 9,	Pompton,	Hattie Conklin,	Set fire without a permit,	Released with a warning.
November 15, ..	Pompton,	Chas. W. Price,	Set an illegal backfire and allowed it to escape,	Paid fine, \$10.00.
March 30,	Pompton,	New York Transit Co.,	1 fire set by locomotive,	Released with a warning.
November 12, ..	Pompton,	Erie R. R.,	1 fire set by locomotive,	Paid firewarden's bills, \$115.15.
December 2,	Pompton,	Erie R. R.,	1 fire set by locomotive,	Pending.
June 16,	Pompton,	Newark Water Dept.,	1 fire set by locomotive,	Released with a warning.
June 16,	Pompton,	Willis Purbee,	1 fire set by locomotive,	Pending.
June 16,	Pompton,	Wm. Lohe,	1 fire set by locomotive,	Pending.
June 16,	Pompton,	New York, Susquehanna and Western R. R.,	2 fires set by locomotives,	Pending.
June 16,	Pompton,	Erie R. R.,	2 fires set by locomotives,	Paid firewarden's bills, \$16.50.
June 16,	Pompton,	Erie R. R.,	3 fires set by locomotives,	Pending.
May 6,	Salem County—Lower Alloway Creek, ..	Winfield Scudder,	Set fire without a permit and allowed it to escape,	Pending.

FIRE WARDEN'S REPORT.

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December 4,	Pittsgrove,	Robert Meade,	Set fire without a permit,	Paid fine, \$5.00.
May 3,	Pittsgrove,	Robert Cooper and Frederick Garton,	Fire set by small sons,	Pending.
April 19,	Upper Pittsgrove,	Emil Eifert,	Set fire without a permit,	Pending.
<i>Somerset County—</i>				
March 28,	Bernard,	D. L. & W. R. R.,	4 fires set by locomotives,	Paid firewarden's bills, \$50.50.
April 6,	Bernard,	D. L. & W. R. R.,	2 fires set by locomotives,	Pending.
April 26,	Bridgewater,	J. Vanugo,	Allowed camp-fire to escape,	Pending.
	North Plainfield,	Casero,	Allowed a brush fire to escape,	Pending.
	North Plainfield,	Mrs. M. Grozman,	Set fire without a permit and allowed it to escape,	Pending.
March 30,	Warren,	Allen Grosch,	Set fire without a permit and allowed it to escape,	Paid fine, \$2.00.
<i>Sussex County—</i>				
May 26,	Byram,	D. L. & W. R. R.,	1 fire set by locomotive,	Paid firewarden's bill, \$7.00.
	Byram,	D. L. & W. R. R.,	1 fire set by locomotive,	Pending.
	Hardyston,	Chas. Tanchik,	Set fire without a permit,	Pending.
	Hardyston,	New York, Susquehanna and Western R. R.,	1 fire set by locomotive,	Dropped—township bills too tardv.
	Hardyston,	New York, Susquehanna and Western R. R.,	7 fires set by locomotives,	Pending.
May 5,	Hopatcong,	Benjamin Davis,	Set forest fire by careless smoking,	Pending.
May 7,	Hopatcong,	Wm. Robinson,	Set fire without a permit,	Pending.
	Ogdensburg,	New York, Susquehanna and Western R. R.,	3 fires set by locomotives,	Pending.
	Sparta,	Richards & Gaston Co.,	Set fire without a permit,	Released with a warning.
November 8,	Sparta,	New Jersey Zinc Co.,	Employees refusal to fight fire,	Pending.
November 14,	Sparta,	New York, Susquehanna and Western R. R.,	1 fire set by locomotive,	Pending.
<i>Union County—</i>				
April 6,	New Providence,	Wm. H. Rogers,	Set fire without a permit and allowed it to escape,	Pending.
	New Providence,	D. L. & W. R. R.,	3 fires set by locomotives,	Paid firewarden's bills, \$8.20.
<i>Warren County—</i>				
March 17,	Blairstown,	Bertzel Lance,	Set forest fire by careless smoking,	Pending.
April 1,	Hope,	Raymond Banghart,	Set fire without a permit and allowed it to escape,	Pending.
	Knowlton,	Emma Shannon,	Set fire without a permit and allowed it to escape,	Paid firewarden's bills, \$40.18.
March 30,	Knowlton,	D. L. & W. R. R.,	1 fires set by locomotives,	Paid firewarden's bills, \$43.00.
	Knowlton,	Lehigh & New England R. R.,	4 fires set by locomotives,	Pending.
	Knowlton,	New York, Susquehanna and Western R. R.,	1 fire set by locomotive,	Paid firewarden's bill, \$4.00.

Table 5—Violations of the Forest Fire Law, November 1, 1917, to June 30, 1918—Concluded.

DATE.	COUNTY AND TOWNSHIP.	OFFENDER.	OFFENSE.	SETTLEMENT.
March 30,	Warren County—Con. Knowlton,	New York, Susquehanna and Western R. R.,	5 fires set by locomotives,	Pending.
	Pabaquarry,	New York, Susquehanna and Western R. R.,	3 fires set by locomotives,	Dropped—township bills too tardy.
	Washington,	D. L. & W. R. R.,	1 fire set by locomotive,	Dropped—township bills too tardy.
March 22,	White,	Wm. Percival,	Set fire without a permit and allowed it to escape,	Paid fine, \$9.00.

APPENDIX.

Mineral Production in New Jersey in 1917.¹

The collection of statistics regarding mineral production in New Jersey is carried on co-operatively by the New Jersey Department of Conservation and Development and the United States Geological Survey, and the figures obtained are published by each of the two organizations in its own publications. This co-operative method tends to greater accuracy, more accord in the figures published by each organization, saves expense, and prevents troubling the producers by requests for the same information from two sources.

The following brief statement of the mineral production in New Jersey during 1917 indicates that New Jersey not only continues to hold its own but steadily advances along almost all lines of mineral production in which it has been engaged for some years past.

Total production.—The total value of the mineral production of New Jersey during 1917 was \$45,516,478. This was an increase of \$5,080,816 over the output for 1916. The chief increases were in clay and clay products (nearly \$2,000,000), iron ore (nearly \$500,000), sand and gravel (nearly \$400,000), stone (over \$200,000), and miscellaneous products (over \$4,000,000).

Zinc ore.—New Jersey continues to be one of the leading States in the mining of zinc ore. The quantity of ore taken from the mines in 1917 was 720,561 short tons. This was the output of the Franklin Furnace mine and the Sterling Hill mine, both owned by the New Jersey Zinc Company, the sole zinc producer in the State. The total amount of zinc ore which has been taken

¹ Compiled by M. W. Twitchell, Assistant State Geologist.

from the mines in New Jersey since 1880 is 8,904,584 short tons. The zinc ore is all crushed and separated by electro-magnetic methods at the mills at Franklin Furnace. Most of the resulting crude products then go to plants owned by the New Jersey Zinc Company which are located in Pennsylvania, where they are converted into high-grade metallic zinc (or spelter) and zinc oxide, which find various uses in the industrial arts.

Iron ore.—The notable features of the iron mining industry in New Jersey during 1917 were the increase from six to eight in the number of mines reporting sales, considerable development work on several other mines, including the Scrub Oak and Hibernia of the old Wharton group of properties which have been idle for several years, the maintenance of the production at the high figure of about 490,000 tons, and the pronounced increase in the total value of the sales and in average value per ton. Four companies operated seven mines in 1917, reporting 489,943 long tons of magnetite iron ore mined, which was practically the same as the preceding year—3,061 long tons less, to be exact. The amount marketed was 474,708 long tons, having a value of \$2,341,160, a decrease in quantity of 53,376 long tons, but an increase in value of \$464,104. The average value per ton was \$4.93, while in 1916 it was \$3.55, which was the greatest it had been for over ten years. The total amount of iron ore which has been mined in New Jersey since 1870 is 21,873,353 long tons.

Clay and clay products.—The significant features of this great industry during the year 1917 were the increase in the production of raw clay beyond the million dollar mark, the increase in the pottery output of a million and a half dollars over the record-breaking production of the previous year, largely due to increases in high-grade wares such as were formerly imported from abroad, and the increase of the grand total from \$21,605,198 to \$23,564,935, the highest output in the history of the industry. The manufacture of chemical stoneware and porcelain reached the point where it can be separately listed, there being five producers and an output valued at about half a million dollars. The output of fireproofing and hollow blocks forged ahead of that of architectural terra cotta, and the various forms of tile, with a record production valued at \$2,167,296. The output of common

brick naturally decreased, owing to abnormal building, transportation and fuel conditions; while that of fire brick nearly doubled, suggestive of the large increase in the number of plants requiring refractory linings to furnaces, chimneys, etc.

Stone.—The most noticeable feature of the stone industry of New Jersey in 1917 was the large increase in the output of limestone, the increase in value being from \$245,019 to \$413,477 or \$168,458, an advance of 69 per cent. This was chiefly in limestone for blast furnace flux, evidently due to increased activity in the steel industry on account of the war. As for a number of years past, the production of trap rock, chiefly in the crushed form for road metal, railroad ballast and concrete, continued to advance, the value of the increase over 1916 being \$79,739. On the other hand the output of other forms of rock (except limestone) fell still further, the decrease as compared with 1916 being from \$128,063 to \$86,322 or \$41,751, a fall of 32 per cent. The total output of stone in New Jersey in 1917 was valued at \$1,872,755, a net increase of \$206,456 over that for 1916. This includes trap rock, limestone, granite, sandstone, argillite, slate and talc-rock or serpentine.

Portland cement.—The plant of the Alpha Portland Cement Company, one of the large producers of Portland cement in New Jersey, was idle for the larger part of 1917 and there was therefore a decrease in the total State production as compared with the previous year. The other two producers, the Edison Portland Cement Company and the Vulcanite Portland Cement Company, were in active operation. It is not practicable to give the separate figures for the production and the value of the output is therefore included this year under the heading "Miscellaneous."

Sand and gravel.—This is one of the important mineral industries of the State. It is also one of the most widely distributed, there being 71 active producers in 1917, with pits in 16 out of the 21 counties in the State. The total output of sand in 1917 was 2,995,004 short tons, valued at \$1,693,038, an increase of \$386,085. The striking feature of the year was the large increase in molding sand, which forged to first place with an output of 611,916 tons valued at \$651,279, an increase of \$171,853. There was also a substantial increase in the output of fire or furnace

sand, amounting to \$71,508. Both of these increases were apparently due to war activities.

Peat.—For the first time in the history of the peat industry the production can be separately given. The total output in 1917 was 42,361 short tons with a value of \$320,550. The value of the output in 1916 was \$197,754. Most of the peat mined was used for agricultural purposes. Four of the producing plants were located in Sussex County and one in Warren County.

Other minerals.—In addition to the minerals separately discussed above, New Jersey produced in 1917, 1,283,157 gallons of mineral waters, valued at \$115,188; 5,002 short tons of lime, valued at \$18,978; small amounts of greensand marl, ground quartz and precious stones, and considerable quantities of coke, and lead and zinc pigments. In many of these cases the number of operators is less than three and for this or other reasons the individual figures cannot be published. In a number of cases, in order to bring the figures of the State Survey as nearly as possible in accord with those published by the Federal Survey, and to avoid giving values of both raw materials and of products derived from them, the values have been included under the heading "Miscellaneous," but not included under the heading "Total for all products." This change in policy has naturally reduced in some measure the State total, as compared with previous reports.

Statistical table.—Details of the mineral production are given in the following table, which also presents figures for previous years for purposes of comparison.

APPENDIX.

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Mineral Production in New Jersey in 1917.

Product.	No. of Pro-ducers.	1917. Quantity.	Value.	1916 Value.	1915 Value.
Zinc ore (a),	1	720,561 s. t.	(a)		
Iron ore (b),	5	474,708 l. t.	\$2,341,160	\$1,877,056	\$1,140,400
Clay—					
Fire and sagger clay, ...	30	281,098 s. t.	\$815,507	\$585,230	\$412,353
Brick clay,	8	38,563 "	46,204	17,880	35,808
Stoneware clay,	8	12,041 "	39,326	22,388	28,706
Ball clay,	6	5,118 "	28,264	26,397	27,879
Other grades (c),	14	43,542 "	106,402	138,901	113,158
Total raw clay,	39	380,362	\$1,035,703	\$790,796	\$617,904
Sanitary ware,					
Porcelain electrical sup-	21		\$7,202,671	\$6,458,356	\$4,793,406
Pottery—					
plies,	14		1,893,382	1,674,093	1,028,992
China, bone china, delft, belleek,	6		1,632,622	1,407,930	983,855
White ware, etc. (d), ..	8		1,040,697	811,391	665,633
Stoneware, etc. (e),	5		43,595	148,410	126,415
Chemical stoneware and porcelain,	5		472,681	564,698	451,037
Miscellaneous (f),	12		250,195		
Total pottery,	54		\$12,535,843	\$11,064,878	\$8,049,338
Brick and tile—					
Fire brick,	15	42,065 M	\$2,290,899	\$1,162,794	\$899,613
Common brick	12	205,794 M	1,843,246	2,366,614	2,099,654
Front brick,	9		682,014	816,346	784,919
Fancy brick,	2				
Enameled brick,	3				
Total brick,	57		\$4,816,159	\$4,345,754	\$3,784,186
Fireproofing and hollow					
blocks,	12	302,648 s. t.	\$2,167,296	\$1,830,949	\$1,389,120
Architectural terra-cotta, ..	6		1,322,202	1,818,052	1,430,968
Tile (other than drain tile),	12		1,301,960	1,298,392	995,097
Drain tile,	4		31,300	30,542	41,331
Miscellaneous (g),	8		354,472	425,835	275,378
Total tile, etc.,	33		\$5,177,230	\$5,403,770	\$4,131,894
Total brick and tile, ..	89		\$9,993,389	\$9,749,524	\$7,916,080
Total clay and clay products,	182		\$23,564,935	\$21,605,108	\$16,583,322
Stone—					
Trap (h)	45	1,395,566 s. t.	\$1,372,956	\$1,293,217	\$1,281,545
Limestone (i),	15		413,477	245,019	159,549
Other stone (j),	11		86,322	128,063	170,967
Total stone,	71		\$1,872,755	\$1,666,299	\$1,612,061

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Mineral Production in New Jersey In 1917—Continued.

Product.	Pro- ducers.	1917. Quantity.	Value.	1916 Value.	1915 Value.
Total crushed stone (k),	54	1,474,815 s. t.	\$1,444,858	\$1,369,926	\$1,380,266
Sand—					
Molding sand,	34	611,916 s. t.	\$651,279	\$479,426	\$331,792
Building sand,	30	1,818,275 "	545,437	417,954	421,927
Blast sand,	9	95,741 "	127,244	86,599	48,236
Grinding and polishing sand,					
Fire or furnace sand, ...	13	118,682 "	121,295	49,787	37,184
Glass sand,	5	100,448 "	93,194	115,204	64,862
Paving sand,	5	121,601 "	57,725	83,146	53,559
Engine sand,	5	58,552 "	30,319	23,318	20,133
Other sands (l),	12	69,789 "	66,545	51,519	22,476
Total sand,	65	2,995,004 "	\$1,693,038	\$1,306,953	\$1,000,169
Gravel,	25	787,453 "	332,286	210,520	447,388
Total sand and gravel,	71	3,782,457 "	\$2,025,324	\$1,517,473	\$1,447,557
Peat (m),	5	42,361 s. t.	\$320,550	\$197,754	(m)
Mineral waters (n),	14	1,283,157 gal.	115,188	130,993	\$116,226
Lime,	7	5,002 s. t.	18,978	26,084	35,393
Miscellaneous—					
Coke (o),	16		24,196,511	11,041,814	10,821,452
Greensand marl (p), ..					
Ground quartz,					
Precious stones,					
Lead and zinc pigments (q),					
Zinc ore (a),					
Portland cement (r), .					
Pig iron (s),					
Total of all products (t),	372		\$45,516,478	\$40,399,540	\$33,364,117

a. As there is but one zinc operator, the value of the ore cannot be given separately, but is included in the total for miscellaneous minerals. From this zinc ore there was obtained, at plants located in other States, 155,332 long tons of manganiferous zinc residuum.

b. The quantity of iron ore given is the ore marketed.

c. Includes slip clay, foundry clay, crucible clay, clay for abrasive wheels, etc.

d. Whiteware, C. C. ware, white granite, semi-porcelain ware, and semi-vitreous porcelain ware.

e. Stoneware, yellow or Rockingham ware, and red earthenware.

f. Includes tobacco pipes, hardware trimmings, art pottery, souvenirs, saggers, etc. In 1916 and 1915 included also chemical stoneware and porcelain.

g. Includes sewer-pipe, stove lining, gas logs, flue lining, wall coping, conduits, glass house supplies, etc.

- h.** The quantity figure given is that of crushed stone only. Its value was \$1,358,735.
- i.** Chiefly limestone used for blast furnace flux, with smaller amounts used for agricultural purposes, road making, etc. The crushed stone is included in the total for crushed stone, below.
- j.** Includes granite, sandstone, argillite, slate and talc and serpentine, which have to be combined in order to conceal individual production. The crushed stone items are included in the total for crushed stone, below.
- k.** These values have been included in the figures for the different varieties of stone and in the total stone production.
- l.** Includes filter sand, sand for soap manufacturers, etc.
- m.** Peat production figures were not available prior to 1916.
- n.** Of the total value, \$107,437 is the table water and \$7,751 is for medicinal water. In addition, 73,605 gallons were used for soft drinks.
- o.** This is coke made as a by-product of gas manufacture in by-product ovens. In former years we have included both the value of the coke and the gas, tar, etc., but this year the value of the coke alone is included. This value is also included in the total for all products, as no duplication of values is thereby involved so far as the present table is concerned, none of the coal used having been mined in nor credited to New Jersey.
- p.** The production here reported was largely for experimental purposes in connection with potash investigations.
- q.** The total for both lead and zinc pigments is here included; but that for the lead pigments only is included in the total for all products, as the zinc ore which is largely used in the manufacture of the zinc pigments is credited elsewhere in the table.
- r.** As the plant of one of the three producers was idle during the most of the year 1917, it is impracticable to give separately the output of Portland cement as in previous years.
- s.** This is included here in the miscellaneous total; but not in the total for all products, as much of the iron ore used was mined in this State and is already credited elsewhere in the table. The quantity produced in 1917 was 187,753 long tons.
- t.** Certain items which were included under "Miscellaneous" are not included in this total for the reason that to do so would involve more or less duplication of values, as the raw materials from which they are produced are already credited under the appropriate heads. Among these are zinc pigments, and pig iron. Owing chiefly to the fact that the United States Geological Survey, with whom we co-operate in the collection of these statistics, has to avoid duplications arising from crediting products to two or more States, whereas we have New Jersey alone to consider, their total for the State can never be brought to agree exactly with ours.

Document No. 57

ANNUAL REPORT

OF THE

Department of Conservation and Development

FOR THE

Year Ending June 30th, 1919

Fig. 1. View from Kittatinny Mountain, Stokes State Forest.

REPORTS OF THE
DEPARTMENT OF CONSERVATION AND DEVELOPMENT
STATE OF NEW JERSEY

ANNUAL REPORT

For the Year Ending June 30
1919

Department of
Conservation and Development

SUCCEEDING
THE GEOLOGICAL SURVEY
THE FOREST PARK RESERVATION COMMISSION
THE STATE MUSEUM COMMISSION
THE STATE WATER-SUPPLY COMMISSION
THE WASHINGTON CROSSING PARK COMMISSION
THE FORT NONSENSE PARK COMMISSION

TRENTON, N. J.
PUBLISHED BY THE STATE
1919

Letter of Transmittal

To His Excellency, William N. Runyon, Acting Governor:

SIR—I have the honor to submit for your information, and for transmittal to the Legislature as required by law, the annual report of the Department of Conservation and Development for the fiscal year ending June 30, 1919. It includes reports by the Board, the State Geologist, the State Forester, the State Firewarden, and a special report on Potash Explorations in New Jersey Greensands.

By direction of the Board of Conservation and Development.

Very respectfully yours,

ALFRED GASKILL,

Director.

State House, October 1, 1919.

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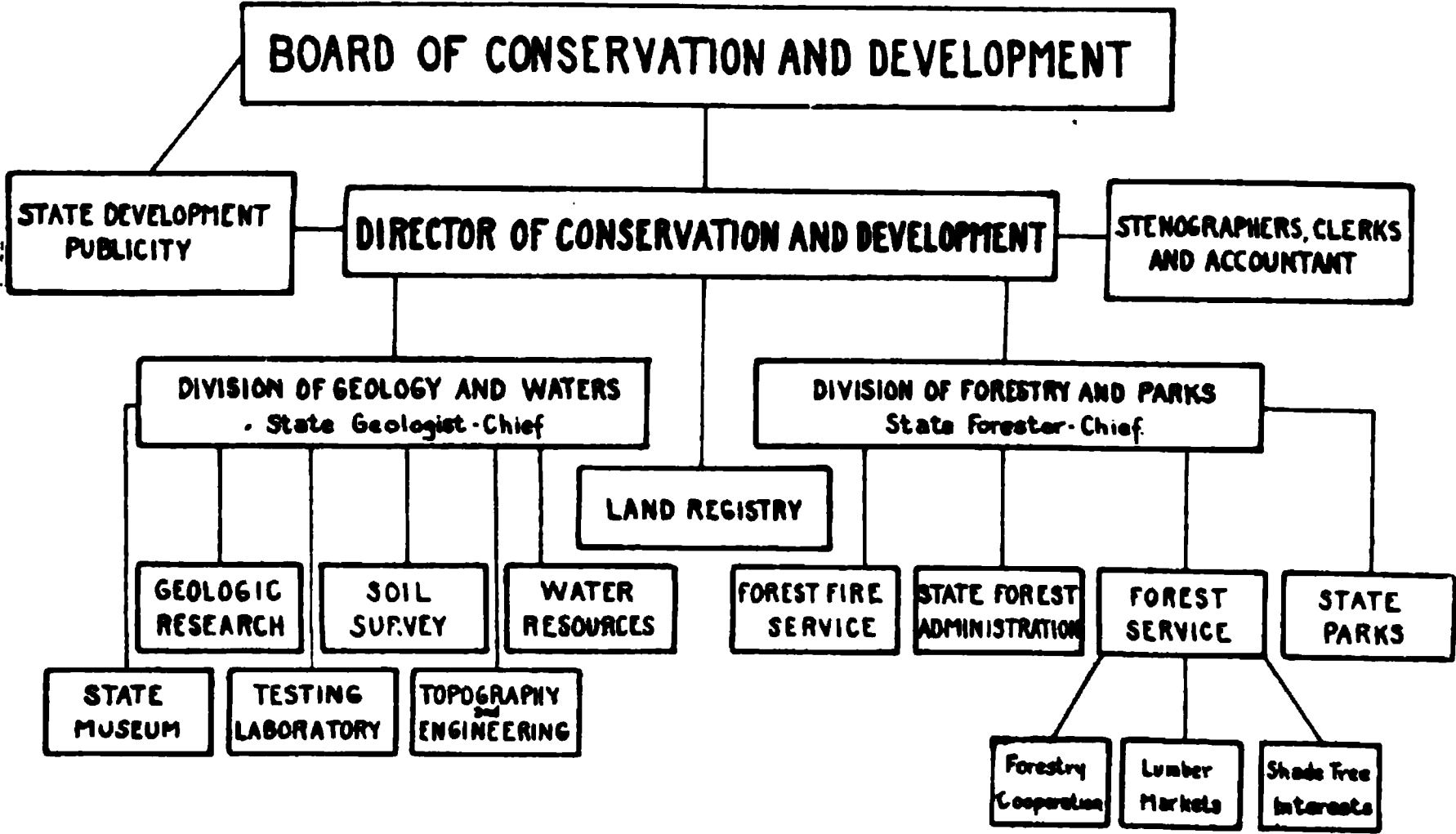
The Department of Conservation and Development

OFFICE, STATE HOUSE ANNEX, TRENTON.

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PERCIVAL CHRYSTIEHigh Bridge
WILLIAM J. KRAFT.....West Collingswood
JOHN L. KUSER.....Bordentown
SIMON P. NORTHRUPNewark
ISAAC F. RICHEY.....Trenton
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HENRY CROFUT WHITE.....North Plainfield

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J. VOLNEY LEWIS, New Brunswick.....*Consulting Geologist*
H. T. CRITCHLOW, Trenton.....*Water Engineer*
CHARLES P. WILBER, Trenton.....*State Firecarden*
W. M. BAKER, Lawrenceville.....*Assistant Forester*
FREDERIC H. MILLEN, Trenton.....*Assistant Forester*
R. B. GAGE, Trenton Junction.....*Chemical Engineer*
HELEN C. PERRY, Trenton.....*Museum Curator*
EDWARD C. STOVER, JR., Trenton.....*Publicity Agent*
LAWRENCE G. GILLAM, Mount Holly.....*Chief, Land Registry*
C. C. ENGLE, Toms River.....*Soil Classifier*
WILLIAM LINDSAY, Trenton.....*Assistant State Firewarden*
JOSEPH E. ABBOTT, Vineland.....*Division Firewarden*
FREDERIC C. TORREY, Lakehurst.....*Division Firewarden*
R. E. THOMPSON, Morris Plains.....*Division Firecarden*



Report of the Board of Conservation and Development

In submitting its Report for the year ending June 30, 1919, the Board presents a summary of the many activities of the Department which are dealt with more at length in its reports of its administrative officers published herewith, and calls attention to the most important projects in its field not yet undertaken. New Jersey is full of undeveloped resources and unexploited opportunities; their magnitude and value are beginning to be appreciated; the way to realize them is pointed out.

The close of the war brought to an end the emergency activities which had been undertaken and permitted a return to the problems of State improvement with which the Department is concerned. The broad scope of these is shown in the following pages.

The Board has much satisfaction in the steady growth of the Department, and in the frequent appeals by the public for its assistance. For the means to carry out the important extensions found in its program it bespeaks the consideration of the Legislature and of every citizen.

MEMBERSHIP.

Since making its last report the Board has lost one of its original members, who died April 3, 1919. Its appreciation of his character and service is recorded in the following minute:

"In the death of Stephen Pfeil, the State of New Jersey has lost a faithful servant, and the Board of Conservation and Development a valued associate. Studious and thoughtful; modest and unassuming; sincere and earnest in his ideals, yet responsive to suggestion; devoted to duty, yet genial and friendly, he served with fidelity, as a member of the Geological Survey and this Board from 1911 until his death.

"Remembering his character and usefulness, his associates in the Department express thus their appreciation of his work, their regret in his loss, and their deep and sincere sympathy with the grief of his family."

Mr. William J. Kraft, of Camden County, was appointed in succession. No appointment has yet been made as successor to Mr. George A. Steele, whose term expired June 30.

Mr. William E. Tuttle, Jr., was elected President for the year beginning July 1, 1919.

PERSONNEL.

At the close of the year the Departmental roster contained 52 names, an increase of 11 over last year. Two men and one woman member returned in safety from service over seas and two men from service with the home forces. The Director's health obliged him to be absent most of the winter, during which time the State Geologist most kindly and efficiently acted in his stead. In February he returned to duty and on July 1 was unanimously elected to a second term of four years.

Numerous changes in the junior personnel have occurred; none in the higher positions.

In this place it is proper to urge a material increase in the compensation of all State employees. The present rates, fixed when living costs were much lower, no longer cover necessary expenditures; wages in most lines have advanced to a point that is demoralizing to clerical, and often to highly technical, service. Unless the State shall meet this situation in an effective way the discontent that is now rife cannot fail to lessen the efficiency of its whole working force.

UNDEVELOPED JERSEY.

It may fairly be claimed that through the efforts of this Department a considerable interest in the State's latent resources has been awakened. Though the reproach that few Jersey men know their own State is still valid, many agencies are at work to remove it.

The continued studies of the Department tend only to confirm the statements heretofore made that a large part of our despised South Jersey soil is really of high agricultural value in the hands of intelligent farmers. War industries have drawn attention to the value of factory sites upon the coastal water-ways and along the Delaware River. Home attractions and holiday attractions, along the coast, in the hills, and within easy reach of our neighboring

large cities, suggest great possibilities. With the incubus of mosquitoes removed, or even greatly lessened, all these resources are bound to be developed through their own intrinsic worth. New Jersey is in better position than any other commonwealth to apply the modern principle of concentration to her interests and activities.

Advertising.—But to realize the benefits that are apparent to those who know, some direct appeal must be made to those who do not know. Other states act upon this principle, and get results. In a handsome booklet issued by the State of Washington complaint is made that “only \$15,000 is available for such publicity through a two-year period, whereas in California it is estimated that as much as five million dollars are expended annually by that State for the purpose of going after such business.” Let New Jersey’s real, substantial attractions be made known.

MOSQUITO CONTROL.

The year is signalized by the greatest advance ever made in popular appreciation of the importance of this subject. With the active aid of County Mosquito Commissions, the State Agricultural Experiment Station, the State Chamber of Commerce, and many other interests, and with strong cooperation by the Department of Institutions and Agencies (Charities and Corrections) an earnest effort was made to secure an appropriation of \$100,000 for salt marsh mosquito control with the labor of State prisoners and reformatory inmates. Although the effort failed, it accomplished much in enlightening the public.

During the early summer unusual flights of mosquitoes, salt marsh and fresh water species, emphasized the situation in which the State is placed with respect to this pest. Though the problem of salt marsh mosquito control is entirely different from that of fresh water mosquito control, the prevalence of the insects has served greatly to emphasize the contention of this Department that the nuisance can be done away with, and that the people, and land values, all over the State, suffer unnecessarily.

After repeated and careful revision of its estimates of the value of the work proposed, there is every assurance that the cost of practically eliminating the salt marsh mosquitoes need not be above \$750,000, or \$150,000 a year for five years, and that the benefits to

follow will be represented by an increase in the ratables of not less than \$50,000,000 within twenty years. Every authority supports the reasonableness and validity of these estimates. Enterprises of every kind in all parts of the State wait upon this action. It is a simple business proposition to spend \$750,000, or five times that much if need be, to secure the results that are easily measurable in increased population, increased ratables, higher credit, and greater satisfaction. This Board is of the opinion that the control of fresh water mosquitoes is a local problem, and entirely within the abilities of the county mosquito commissions. The State's task and opportunity is to convert a heavy liability—an ill repute based upon salt marsh mosquitoes, into an asset of great value.

WATER RESOURCES.

The applications for increased water service recorded at pages 41-45 establish the great need for increased supplies of potable water in the metropolitan section. The Department conceives it to be its duty to facilitate to the utmost every reasonable plan looking toward the development of available water sources. It is also encouraging in every way the conservation of water. Meter studies made during the past two years, though still inconclusive, clearly indicate the value of meter installation in reducing water waste.

Excess diversion tax.—Under the operation of Chapter 252, P. L. 1907, the Board certified to the State Comptroller the sum of \$26,855.45 as due for water diversion during 1918, in excess of the statutory free allowance, at the rate of \$1 per million gallons. Of this amount \$14,457.65 remains unpaid. In the action brought by the Attorney-General against Jersey City for unpaid back charges, judgment in favor of the State has been rendered in the sum of \$22,285.34. Final disposition of this case, and of a number of others involving a total of upwards of \$51,000, is contingent upon the outcome of the appeal of Jersey City to the Court of Errors and Appeals. The Board believes that the State is justly entitled to the tax levied under the law for excess water diversion and that to relieve any community of this charge would be unfair to the public at large.

Dam inspection.—The Department's inability, through lack of necessary funds, to make the systematic inspections of dams that the law contemplates has been emphasized by several failures during

the year. An appropriation of \$5,000 to provide this important service is urgently needed.

Stream gaging.—Water shortage in sections of the State has emphasized the need of more complete data respecting stream flow. Though much work of this kind has been done in the past, the value of the record increases greatly with the time through which observations are maintained. It is proposed that this work shall be resumed and the flow of all our important streams systematically recorded.

Underground waters.—The recorded data relative to underground water supplies become increasingly valuable as additional records are secured. A special report dealing with this subject is in preparation.

WHARTON TRACT.

The importance of providing for the development and complete utilization of every source of potable water in the State has become so clear that the Budget Commission last year approved the Department's plan and proposed to provide \$10,000 for a study of South Jersey's water sources, especially the Wharton tract, to determine their availability for the service of the industrial section. The Appropriations Committee, however, found it impossible to allow this sum and to satisfy the Department's needs in other directions. It is, therefore, necessary to defer taking up this project.

The lapse of a year has but served to confirm the Board's conviction that the metropolitan district is in sore need of a greater supply of potable water. Though this need has not yet become active in many communities, there are indications that some of them will be seriously checked in their development unless an adequate water service can be provided. The sources in North Jersey are limited, and in large measure utilized. South Jersey has more than enough. That the Wharton tract contains a large quantity of good water is well known. If that water can be impounded and transported at almost any reasonable cost, there is little doubt of the course that the State should follow. It is not proposed that any land or rights shall be acquired now, but that a careful study by competent engineers be undertaken to determine if and how the waters of the Wharton tract, or of any other area, can be made to satisfy a need that is becoming urgent.

UPPER PASSAIC MEADOWS.

For forty years the problem of controlling floods in the Upper Passaic Valley, and redeeming the submerged lands to agriculture, has been before the public. Several investigations and reports were made by the Geological Survey. Drainage works were authorized, partly carried out and then abandoned. A special Commission later considered the control of flood waters originating in the Passaic watershed for the protection of the communities below Great Falls. Interest in the situation has recently been revived through the recurrence of moderate floods, with attendant extraordinary flights of mosquitoes. With a greatly stimulated interest in mosquito control, an awakened agricultural interest, a newly established Naval Station and a developing suburban section in the neighborhood of the submerged lands, the problem takes on new phases, and the demand for its solution has become insistent. The Department, therefore, since the close of the official year, has undertaken a re-examination of the whole situation with a view to recommending such measures as are practicable.

FORESTRY.

In common with every other interest the needs and opportunities incident to the State's and Nation's forests have been emphasized by the war. Never before have the advantages of a timber supply produced close to the points of consumption been emphasized as they were through the experience of the armies in Europe.

New Jersey needs a large quantity of lumber; her forests are capable of satisfying a considerable part of that need; yet their actual yield is barely a twentieth of what is consumed. The reports of the State Forester, page 55, and of the State Firewarden, page 65, are commended as sources of information in detail. It is clear that the State can meet a large part of its timber needs by providing adequate forest fire control, and such assistance to woodland owners as shall encourage them to undertake the practice of forestry upon their lands. To this end the recommendations of the Forester and the Firewarden in respect to increased assistants are endorsed.

State forests.—These properties now aggregate 17,151 acres in six tracts. They afford opportunity for practical demonstrations in

AN IMPROVEMENT UPON TREE PLANTING.

Figs. 2 and 3. Homes shaded by trees saved from the native forest.

forestry and in the control of fires. Unfortunately, also, they demonstrate the difficulty of growing timber in sections where fires are prevalent. It still seems to the Board wise to limit the State's holdings of strictly forest lands to a comparatively small proportion of the woodland area, and to encourage private owners to practice forestry on their own account, rather than to absorb large tracts of forest on behalf of the public, as is the practice in some states. This in no wise conflicts with the proposition, page 20, that the State create and maintain a great forest park because the latter is primarily, though by no means solely, a recreation project..

Forest fires.—The forest fire record, being made for the first time to cover the *calendar* year, is not strictly comparable with any figures published heretofore. (See p. 65.) The Firewarden's report clearly indicates, however, that though the number of fires, and the loss suffered, are less than for several years past, forest fire control is a continuing and ever-present problem; and that the forest fire service, admittedly one of the best in the country, lacks much of means to accomplish the results that are sought. Our progress in the prevention and control of fires started from the railroads is encouraging; the record of the smokers is far less creditable. It is urged in the strongest possible way that provision be made for strengthening the service along the lines recommended. Our main dependence is a force that is virtually volunteer; a moderate number of guards regularly employed is the only means of effective fire prevention. Ample justification for strengthening the fire service is found in the increasing value of woodlands in every part of the State. Though no direct record is available, assessments and sales prove clearly that the State's effort has resulted in giving greater value to this form of property. There is much satisfaction in the announcement (p. 72) that responsibility for 432 fires, 54 per cent of all, was fixed. This is believed to be the best record in the United States.

Shade trees.—Interest in shade trees has become Nation-wide, largely through the proposition that trees be planted as memorials to fallen soldiers. Our State leads in shade tree effort, and its practice is followed in several other states. But we cannot afford to stop where we are; too many of our highways are bare, sunny, wind-swept and unattractive. The work done in so many organized communities should stimulate the movement towards tree-bordered roads and streets everywhere. It is urged again that provision be made for an arborist to assist local shade tree commissions and highway authorities under the general direction of the State Forester.

KITTATINNY FOREST PARK.

The proposition advanced a year ago that the Stokes State Forest in Sussex County be increased from its present area of 7,231 acres to include practically the whole crest of the Kittatinny Mountain, from the Water Gap in Warren County to High Point in Sussex County, about forty thousand acres, has met with considerable public approval.

It is generally conceded that the people of a populous community need a place in which to spend their holidays. And they need upland as well as seashore. To be of greatest value such a place must be accessible by public and private conveyance, and must be of a character to satisfy the outing instincts. The area indicated possesses all these. Within three hours of Newark, or Jersey City, are rough mountains, crude forests, and shining lakes. One need not spend the greater part of a short vacation, or a considerable portion of the available money, in reaching the vacation ground. It is here close at hand and easy of access by various means. The Catskills of New York, the Pocono region of Pennsylvania, the Berkshires of Massachusetts, are in no way more attractive than the upland section of New Jersey. Those who know it constantly wonder that it is so little appreciated.

The idea of a State Forest Park in the western extremity of this region aims at the development of the whole, a development that will not be expressed in recreational features alone but in the building up of the farms and the towns adjacent. The decadent condition of this section, its loss of population and reduced property values—outside of a few towns, evidence the State's neglect of an important resource. The region is worth building up; it can be built up on dairying, sheep culture, orcharding and entertaining visitors.

It is not intended that the Forest Park shall be provided with lawns and seats and other features of a home playground, but that the wild woods, rocks, hills, and waterfalls shall be the main attraction. Practical roads and trails, and sufficient supervision, are of course a necessity, yet they need involve no great expenditure for maintenance; eventually, certainly within 20 years, the forest itself will yield enough timber to make the property entirely self-supporting.

SCENES ON THE STOKES STATE FOREST, SUSSEX COUNTY.

Fig. 4. Taking out lumber.

Fig. 5. In the heart of the forest.

Fig. 6. A trout stream.



Two large tracts have been offered to the Board—one of approximately 6,000 acres at \$6.00 per acre, one of something over 8,000 acres at \$5.00 per acre. It is advised that provision for the purchase of at least one of these properties be made next year. The outlay will be truly an investment.

WASHINGTON CROSSING PARK.

The Legislature having again approved the project of a memorial to Washington Crossing by the enactment of legislation conferring upon this Department the necessary authority, it now remains only to provide funds to carry out the work. This Department heartily approves of the proposed memorial. It believes that the State has not only been laggard, but that it has lost a great opportunity through its failure adequately to commemorate the event which marked one of the high points in the Revolutionary war. The project has not received the support of the public at large that it deserves, but has been looked upon in large measure as an effort in which the City of Trenton and the County of Mercer chiefly were concerned.

Now that thought is being given to memorials to those who performed great deeds in the Great War, the State is in danger of once more failing to rise to its opportunity if it neglects longer to provide a worthy, lasting memorial of an action which has gained, rather than lost, in importance during the hundred and forty-two years since it was performed. The State of Pennsylvania has already begun to create a memorial on its side of the river, though the historic action is less intimately connected with Pennsylvania's territory than it is with New Jersey.

It is urged that an appropriation of \$50,000 be made for the acquisition of the old McKonkey ferry house, and enough land adjacent to the present holding to make a beginning that shall express New Jersey's appreciation of her advantage in this connection. Whether the original elaborate plan made by the former Washington Crossing Park Commission shall be carried out, or whether something more modest should represent our effort, is for the Legislature to decide. Pending further Legislative action the property now owned is continued under lease from which a small revenue is derived.

STATE MUSEUM.

Popular appreciation of this organization has grown with the extension of its activities. The Curator, who was in war service throughout the year, has now returned prepared to continue the work that has been so well begun.

That the organization is seriously handicapped by lack of adequate quarters is apparent. It is impossible to present properly any class of exhibits in a restricted space. Attention, therefore, has been concentrated upon the preparation of special timely exhibits and of material that can be loaned to schools and other instructional agencies throughout the State. In this work closest cooperation has been established with the Departments of Education, Health, and Agriculture, with several State Commissions and with many commercial interests. Its value is suggested in the recorded circulation of 1,655 charts, pictures, etc., against 784 of the same last year. The attendance at the special exhibits totalled 23,855 in spite of all handicaps. (See p. 41.)

The Museum has received recognition outside the State for the work that it is doing along this new line. The field is a broad one; the opportunities are many; the organization deserves the support of the public and of the Legislature.

TESTING LABORATORY.

During the year the new laboratory has been fully equipped for testing materials of many kinds. Owing to the partial cessation of road building due to war embargoes, much of the work was done by the regular laboratory force. By the close of the year, however, the volume of work from the State Highway Department was so large that it was necessary to increase greatly the force of chemists and other technical workers, who now number ten. The building, which seemed large when first occupied, is already crowded in some parts, and it has been necessary to erect a small addition for storage purposes. With a provision for necessary help and for special apparatus the organization is capable of expansion to meet State needs in several lines.

SOIL SURVEY.

The work of classifying and mapping the soils of the State is in its tenth year and it is expected that the whole task, including a resurvey of the two areas first undertaken, will be completed within three years. The surveys this season covered 1,222 square miles; the cost, only \$6.75 per square mile, was borne in almost equal shares by this Department and the United States Bureau of Soils. The status of this work, so highly important to our farming interests, and the areas covered by reports now available, are shown in figure 7.

POTASH.

The presence of potash in our greensand marls, and their consequent value to agriculture, has long been known. For the purpose of locating the most available deposits, and determining their potash content a new study was undertaken in cooperation with the United States Geological Survey. A preliminary report is printed at page 99.

LAND REGISTRY.

It has been the conviction of the Board that one of the most effective means of attracting attention to New Jersey would be found in an organization for investigating, registering and advertising land within the State available for development as farms, for industries, for recreation, etc.

With no funds available to establish this agency, Mr. Pfeil, of the Board, offered to start the work without compensation and thereby to determine the value of the project. After working for several months trying out various methods of getting in touch with numerous interests, there appeared to be little doubt that there was room for a systematic effort. At that point Mr. Pfeil was obliged to devote himself to his personal affairs, yet soon after the Legislature supported the proposal with an appropriation of \$7,000, available July 1. With that assurance an effort was made to get the organization going by May 1 with funds drawn from other sources, chiefly that returning soldiers interested in farming might be helped to locate in this State. It was impossible actually to start until after

June 1, yet there is already ample evidence that the Land Registry was needed, and that it can do positive service to the State and to her land owners. Its activities and its practical methods have drawn much favorable comment from without, as well as from within the State.

In connection with the effort to encourage farming, the Board approved the proposal that the Department should discourage, rather than encourage, those who might be disposed to take up farming without adequate knowledge and adequate capital; that the policy should apply especially to returned soldiers, because in some quarters there is a disposition to promise advantages in farming that cannot be realized unless the farmer is properly qualified; that this danger is serious on account of the federal program which offers inducements to soldiers, which, in the opinion of the Board and of many authorities, are likely to be a source of disappointment and failure.

By midsummer it was clear that there was little foundation for the assumption that large numbers of returned soldiers would abandon their former occupations in favor of farming. Having been ready early to meet this issue; having shown that Jersey can provide ready-made farms, against the promise of farms by and by, the Bureau is offering its facilities to citizen and soldier alike. It will seek to attract industries, home seekers and pleasure seekers as well as farmers.

UNASSESSED LAND AND TAX REFORM.

The apparent fact disclosed in the Report on Undeveloped Lands made to the Governor in 1917, that approximately one-eighth of all the land in the State is not assessed for taxes, having generally escaped notice, was brought to the attention of the Department of Taxes and Assessments. Though in detail the figures submitted may be subject to correction, it is clear that a very considerable area of land is not assessed. The fault probably is one of method, coupled with the low esteem in which a large part of our land is held.

Recognizing the jurisdiction of the Department of Taxes and Assessments in this matter, this Board is satisfied with the assurance given that the necessary reforms will be undertaken. It ventures to suggest, however, that a change in the present method of assessment is needed; that the period within which land subject to arrears of taxes is redeemable be made short and definite with reversion to the taxing body or to the State; that tax maps of every municipality are

a necessity; that a reform in our present system of taxation should begin by assessing separately the land and what is on it, whether in the form of improvements or of growing crops and timber trees. It is believed that the present system tends to undervaluation, and that the fixing of fair values upon all property will injure no one. It is believed that our growing farm interests and growing forest interests deserve every reasonable consideration in the taxing system.

ROAD IMPROVEMENT.

Advocacy of a broad policy of road improvement is an item in the Department's fundamental program. The impaired condition of our chief highways, due to the interruption of work incident to the war, has emphasized upon every hand the necessity for, and the value of, well maintained roads throughout the State. The State's growth depends absolutely upon them.

This Board is in full accord with the conviction of the State Highway Commission that the State should extend its road program in a way to include the improvement and proper maintenance of local roads—those which feed the main highways, because the value of the highways for practical purposes is largely measured by the quality of the roads tributary to them. The State should devise a complete and coherent system of public highways, comprehending the necessary roads of every class. Such a system properly should include provisions for the maintenance of clean borders in place of the tangled, overgrown margins that now obliterate, rather than demark, so large a part of many dedicated highways. This control is necessary in the interest of health, of fire control in the rural sections, of order and of decency. Provision should also be made for adequate and varied tree shade beside the roads.

PUBLICATIONS.

In addition to the annual administrative report for 1918, and numerous press notices, the following publications have been issued:

War on Mosquitoes. A 6-page leaflet, illustrated, outlining the mosquito problem, practical control and its value to the State.

Settle in New Jersey. A 16-page booklet, illustrated, setting forth the opportunities offered by the State to discharged soldiers and others.

Fires for Fun. A 20-page booklet, illustrated, directed to those who use the woods for pleasure, in the interest of forest fire prevention.

Additional Bench Marks in Burlington, Camden, Mercer, Middlesex, and Monmouth Counties. (Bulletin 19, Geologic Series.) A 32-page bulletin, recording changes in original bench marks in Atlantic and Cape May Counties, and a list of bench marks in the counties named in the title.

Elizabeth Topographic Atlas Sheet, on a scale of 1 inch = 2,000 feet. Revised edition.

Jersey City Topographic Atlas Sheet, on a scale of 1 inch = 2,000 feet. Revised edition.

EDUCATIONAL.

The work of the Department is largely educational, directed toward enlightening the public in matters about which they should be concerned. Geology can serve many practical ends by locating and valuing available minerals, soils, and waters. Forestry is little more than a fad unless it serves the material interests of the forest owners, and, through them, helps to satisfy the public in respect to its lumber needs. Our task is to reverse a widespread impression that Jersey's interests are city interests solely; to show the people how to build up backward sections; to break down established habits of neglect and waste—as those which result in forest fires; to help make our whole territory populous and prosperous.

In this effort the Department is absolutely dependent upon the support of the public through the Legislature. As its title indicates and the organic act prescribes, its sphere of activity is almost unlimited. In a time that demands quick results, the methods that must necessarily be followed often seem laggard; much, however, is being accomplished with very inadequate appropriations. One of our chief difficulties is that it is never possible to take up a new inquiry entailing more than a trifling expenditure until after a special appropriation shall have been made. Nevertheless, with the knowledge that has been accumulated through years, the Department is ready, as few organizations are, to meet new demands having to do with State resources. It thus is disseminating information based upon past accomplishment, and striving constantly to extend its field of usefulness by new undertakings.

Whether the actual effort in these undertakings is under this Department's direction, or under the direction of some other agency, is immaterial, since it is conceived that our function is primarily to discover opportunities. Instancing this, the Board in its first program advocated the creation of a strong Department of Agriculture. That has been accomplished. It advocated the reorganization of the Highway Department in the interest of better roads. That also has been accomplished. It advised a provision for satisfying the labor need, in farming sections as well as in industrial centers. That has been developed as a branch of the Department of Labor, notwithstanding the difficulties incident to the war. It recommended the establishment of a Land Registry which should furnish definite, trustworthy information concerning farming, industrial and recreational opportunities in the State. That, too, has come about, though the organization still lacks the appropriation necessary to make its work most effective.

The Board recognizes the difficulty which confronts every Legislature of meeting all the demands made for the support of betterments, yet it feels justified in urging again the importance of a provision for the following projects, some of which have been advanced for several years:

1. An appropriation of \$150,000 to begin the control of salt marsh mosquitoes with prisoner labor.

2. An appropriation of \$10,000 for an expert study of the water resources of South Jersey, particularly of the Wharton tract.

3. An appropriation of \$6,000 to make a systematic inspection of the dams of the State, some of which may be in a dangerous condition, and to maintain a series of gaging stations for the collection of authentic data respecting stream flow.

4. An appropriation of \$10,000 for special publications to advertise New Jersey and its marvelous resources.

5. An appropriation of \$10,000 to strengthen the forest fire service, so that our woodlands may be assured the protection necessary to the production of timber.

6. An appropriation of \$80,000 to purchase land for a Kittatinny Forest Park.

7. An appropriation of \$50,000 for a memorial at Washington Crossing.

8. An appropriation of \$1,800 for a Forester to work with small

forest owners, under a cooperative agreement with the U. S. Department of Agriculture and the State Agricultural Experiment Station.

9. An appropriation of \$2,800 for an arborist, or forester, to assist shade tree commissions and others having interests in shade trees.

10. An appropriation of \$5,000 to provide for an extension of the activities of the State Museum, so that it may more effectively serve the educational interests.

Every item of this program represents an investment which cannot fail to return to the people of the State many times the outlay. All are in the interest of true conservation, which in our view aims not at withholding from use, but developing for use at a reasonable cost every resource and every opportunity with which we, as a State and a people, have been endowed. For the means to carry out this program we bespeak the active assistance of every citizen.

THE BOARD OF CONSERVATION AND DEVELOPMENT,

By ALFRED GASKILL,

Director.

Financial Statement

FOR THE FISCAL YEAR ENDING JUNE 30, 1919.

RECEIPTS

Appropriations—

For salaries	\$46,150.00
For township fire bills.....	6,500.00
For traveling expenses	10,000.00
For fuel, power, blanks, stationery, postage, telephone, telegraph, freight, express and incidentals,	6,000.00
For books, forest tax, insurance, equipment and museum materials	1,100.00
For C. P. Gray—balance due for constructing model of State of New Jersey.....	700.00
For repairs to old Laboratory Building.....	645.00
Transferred from State Highway Department—	
For special laboratory equipment.....	2,500.00
Refund on insurance policies.....	70.43
	<hr/> \$73,665.43

DISBURSEMENTS

Administration—

Salaries—Clerical and Land Registry.....	\$6,004.44
Traveling expenses—Board members.....	293.46
Stationery and blanks.....	1,115.86
Postage	1,602.95
Telephone and telegraph.....	248.15
Express and freight	225.91
Books, instruments and furniture.....	588.16
Incidental supplies	198.72
Insurance	198.51
Printing (not stationery and blanks).....	699.35

Division of Geology and Waters—

Salaries—Technical Force	22,005.71
Traveling expenses—Technical Force.....	3,147.11
New maps	541.44
Laboratory apparatus, supplies, etc.....	811.04
Museum supplies	300.50
Heat, light and power at Laboratory.....	445.07
Incidental supplies	69.49
Special Laboratory equipment.....	2,498.00

CONSERVATION AND DEVELOPMENT.

Division of Forestry and Parks—

Salaries—Technical Force	\$17,839.43	
Traveling expenses—Foresters	571.01	
Traveling expenses—Fire Service.....	5,298.03	
Maintenance of State Forests.....	172.53	
Fire service equipment	158.85	
Incidental supplies	181.31	
Township Fire Bills.....	6,499.34	
Forest tax	303.90	
For repairs to old Laboratory Building.....	645.00	
C. P. Gray, for balance due for constructing model of the State of New Jersey.....	700.00	
Unexpended	302.16	
		<hr/> \$73,665.43

LAND PURCHASE ACCOUNT

RECEIPTS

Balance of appropriation and receipts from sale.....	\$8,161.09
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DISBURSEMENTS

For 1,530 acres of woodland.....	\$8,076.04	
Balance June 30, 1919.....	85.05	
		<hr/> \$8,161.09

CASH ACCOUNT

RECEIPTS

Balance on hand July 1, 1918.....	\$670.60	
Sale of maps and reports.....	859.85	
Fire penalties	3,280.40	
Forests and Parks	451.05	
Miscellaneous	16.75	
		<hr/> \$5,278.65

DISBURSEMENTS

Paid State Treasurer	\$1,752.09	
Paid Township Treasurers.....	2,882.16	
Miscellaneous	13.50	
Balance June 30, 1918—		
Due State Treasurer	\$224.17	
Due Township Treasurers	406.73	
		<hr/> 630.90
		<hr/> \$5,278.65

Report of the State Geologist

HENRY B. KÜMMEL.

ADMINISTRATION.

The State Geologist is Chief of the Division of Geology and Waters and by law is responsible for its scientific and technical work. The testing laboratory and the State museum belong to this Division, as well as those activities indicated by the terms "geology" and "waters." The scope of this work is indicated in the following paragraphs. The results of the scientific investigations of the Division are published as separate papers.

TOPOGRAPHY AND ENGINEERING.

Shark River Inlet improvement.—The work at Shark River Inlet terminated in December, 1918, the jetties being practically, although not entirely, completed. It was not possible with the funds available to put on 71 feet of the reinforced concrete cap on the north jetty, and the State House Commission was unable to comply with the Department's request for an additional allotment to finish the work. Although it would be desirable for a number of reasons to complete the work as designed, the inability to complete the cap will not seriously affect the utility of the work. The seaward end for 40 feet, which is most exposed to the waves, was completed, and even where the cap is lacking the several compartments have been solidly filled with riprap embedded in concrete to within a few inches of the top of the piles, so that the construction is solid and enduring.

The south jetty, 840 feet in length, was entirely completed. The north jetty is about 1,200 feet in length, and with the exception of about 71 feet of cap was finished.

The total cost of the work was \$113,921.52. The question of proceeding against the bonding company for recovery of excess cost over the contract price has been referred to the Attorney General.

Bench marks.—The work of establishing new or additional bench marks in all important municipalities of the State was continued during April, May and June, 1919. Loren P. Plummer, Jr., who had formerly done much of this work under the direction of C. C. Vermeule, was employed and took the field April 1.

In the three months to the close of the year the following lines were run, the circuit either being completed in each case, or the start and finish being on points previously determined:

1. From High Bridge to Wharton via Long Valley and Flanders, along the New Jersey Central Railroad—25 miles. Bench marks set, 50; secondary marks, 25.

2. Morristown to Montclair via Whippany, Caldwell, Great Notch, along the Morristown & Erie Railroad—23 miles. Bench marks set, 60; secondary marks, 20.

3. Great Notch to Little Falls—2 miles. Bench marks set, 2; secondary marks, 1.

4. Jersey City (Pennsylvania Railroad ferries) through Bayonne to Elizabeth—13 miles; re-run 4 miles. Bench marks set, 24; secondary marks, 5.

5. Jersey City (Court House), along the Heights to Guttenburg and return to New Durham—11 miles. Bench marks set, 25; secondary marks, 1.

6. Jersey City to Hoboken, to Jersey City—3 miles. Bench marks set, 10.

7. Robbinsville to Mount Holly via Allentown, New Egypt, and Pemberton, along highway and railroad—31 miles. Bench marks set, 63; secondary marks, 35.

8. Mount Holly to Camden via Medford and Haddonfield—24 miles. Bench marks set, 45; secondary marks, 30.

9. Haddonfield to Winslow via Atco—24 miles. Bench marks set, 50; secondary marks, 25.

10. Atco to Camden via Williamstown, Glassboro, and Woodbury—55 miles. Bench marks set, 70; secondary marks, 50.

11. Glassboro to Woodbury via Mullica Hill and Swedesboro—32 miles. Bench marks set, 35; secondary marks, 34.

Bench marks are commonly indicated by a cross cut on some permanent building; secondary marks are heights of rail joints where highways cross railroad tracks, and similar points, which can be readily located but which are not permanently marked, and which may be subject to change.

In the three months between April 1 and June 30, 243 miles were run and 34 miles re-run. The number of bench marks established was 434, secondary marks, 226—an average of 3 marks per mile. The total cost of the field work was: salaries, \$907.50; traveling expenses, \$686.73; miscellaneous, \$16.87; total, \$1,611.10, an average of \$6.65 per mile of levels (not including re-runs), or \$3.71 per bench mark set, and \$2.44 per mark of both kinds.

The office work involved in checking calculations, adjusting differences, and preparing results for publication, will increase the cost somewhat. That is being done at the time of writing.

As soon as possible descriptions of these additional bench marks will be published so that they may be available for the use of engineers and others.

MINERAL STATISTICS.

The statistics of mineral production in New Jersey in 1918, compiled in cooperation with the United States Geological Survey, show an increase in value over those for 1917. This is, of course, not surprising when the prevailing high prices of all products are considered. In many lines production, as measured in tons or other units, shows a decrease when compared with previous years. The total value for the State amounted to \$48,519,476. Summary tables prepared by Dr. M. W. Twitchell, showing many details of production, are given on pages 105 to 115.

SOIL SURVEY.

The work of differentiating the soils and showing the distribution of the various types on maps, according to the standards of the United States Bureau of Soils, has proceeded steadily, both in the northern and southern portions of the State.

During July, August, and September four men—C. C. Engle and L. L. Lee of the Department staff, and A. L. Patrick and E. B. Deeter of the U. S. Bureau of Soils—were at work in the Bernardsville area, covered by Atlas sheet No. 25. About 392 square miles were mapped in this area. At the end of September the party was transferred to the Chatsworth area in South Jersey, covered by Atlas sheets Nos. 32 and 33, where about 113 square miles had been mapped in the preceding spring. L. L. Lee left the party October 15 to enter

the military service of the Government, the U. S. Bureau of Soils men were transferred to other states about November 1, and C. C. Engle closed the field work December 14, 362 square miles having been mapped.

During the winter Mr. Engle was engaged in transferring field data to permanent maps and in preparation for the approaching season. He commenced field work again in the Chatsworth area March 10, and was joined by Mr. Deeter, of the Bureau of Soils, about April 5, and by Mr. Lee May 8. To the end of May the party had mapped 338 square miles, and at that time transferred to the Bernardsville area as conditions in the mosquito-infested pine and scrub-oak forests of Ocean County were then very unfavorable for work.

The party was joined in the Bernardsville area by Mr. Patrick, of the Bureau of Soils, and during the month of June 130 square miles were mapped.

During the year the total area mapped was: Bernardsville area, 522 square miles; Chatsworth area, 700 square miles; total 1,222 square miles. The total cost of the work was \$8,233.34, of which the United States Bureau of Soils paid \$3,955.73, and the State of New Jersey \$4,277.61. The average cost per square mile mapped was not quite \$6.75.

The soil survey of the State was commenced July 1, 1909, so the fiscal year 1918-1919 completes the first decade of the work. The progress of the survey is shown in figure 7. Reports have been published of the Sussex, Freehold, and Camden areas. Reports on the Belvidere and Millville areas are in the hands of the Government printer in Washington, and the manuscript reports of the Bernardsville and Chatsworth areas will be prepared during the coming winter.

In addition to the areas shown as completed, the Bureau of Soils had earlier made preliminary surveys of the Salem and Trenton areas. But such progress has been made in the study and classification of soils that this preliminary work no longer represents present knowledge of soil types, and these areas will be resurveyed in the near future.

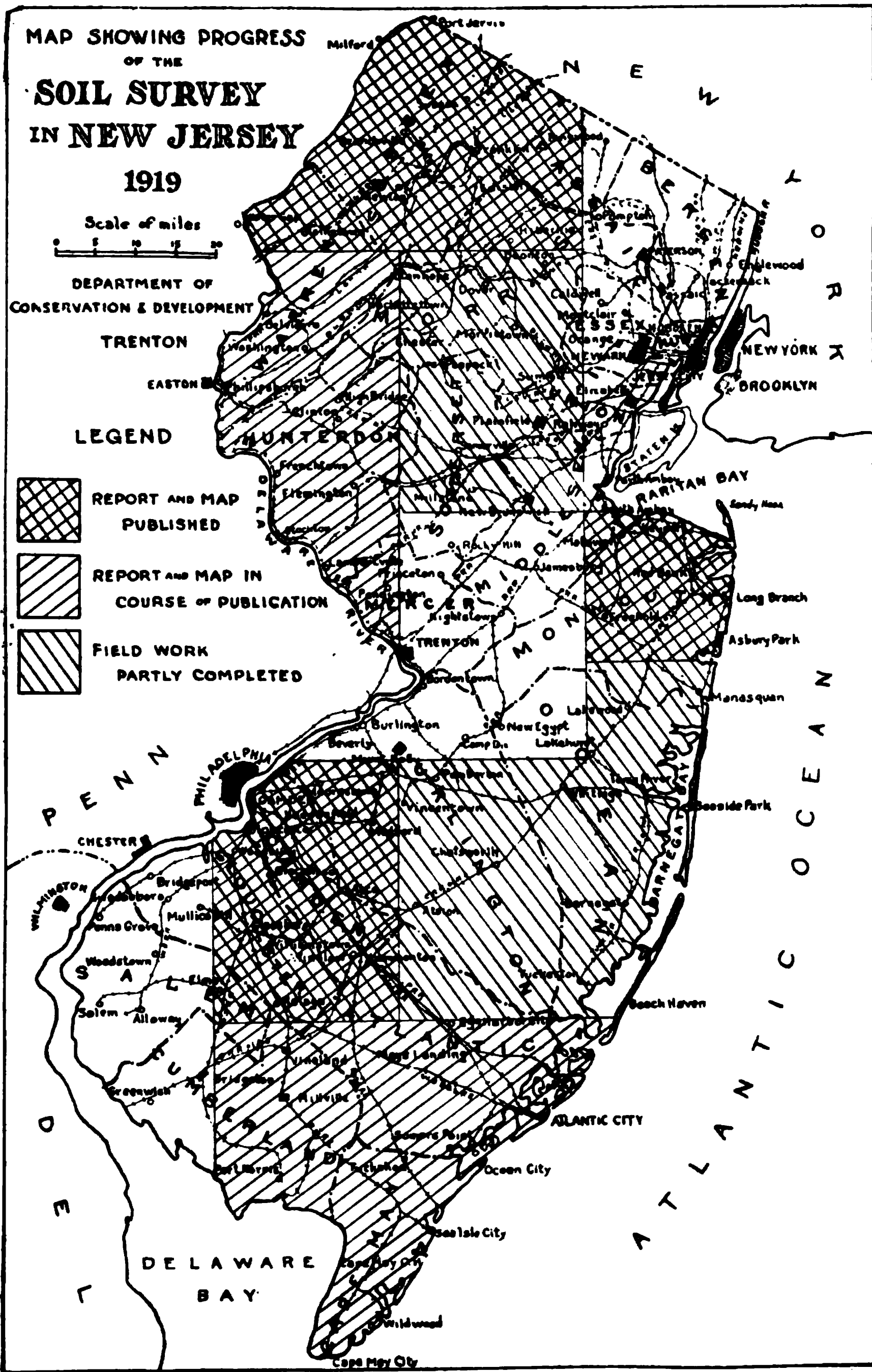


Fig. 7.



GREENSAND MARL.

In recent reports the State Geologist called attention to the importance of the glauconite or greensand deposits of the State as a source of potash. During the last fiscal year considerable attention was given by the Department to this subject, particularly in cooperation with the United States Geological Survey. Joint operations were carried on during the winter to obtain more specific information than was available regarding the quantity, thickness and quality of the marl bed at points favorably situated for commercial development, and to determine the nature and thickness of the overburden in those areas.

The nature of these operations and their preliminary results are set forth in a paper prepared by Dr. George H. Mansfield, of the United States Geological Survey (p. 99), and published here with the permission of the Director of that organization. The final results of this investigation will be published by the United States Geological Survey, and it is planned that this Department will have a special edition for distribution.

The year 1918 witnessed the shipment of several thousand tons of greensand marl to other states for the recovery of potash, but it is not possible to state the actual amount nor the value of the potash recovered, as there were but two producers. One of these is now building a large plant in New Jersey.

TESTING LABORATORY.

Installing equipment.—Early in the year equipment and material were moved from the old laboratory and installed in the new building. This involved the sorting and retention or rejection of hundreds of samples of road-building materials which had been kept on file for reference during the period for which the pavements had been guaranteed.

In addition, much new equipment was installed, including a 300,000-pound testing machine, one brick rattler, one Page impact machine, one cementation machine, air compressors, suction pumps, electric motors, ventilating fans, and electric wires and lights for hoods. Most of this work was done by the regular laboratory force, in addition to the routine testing work. Some additional mechanical help was temporarily engaged.

Testing work.—During the year the testing and experimental work has been done almost entirely for the State Highway Commission. The materials tested, number of samples of each, and amount of material represented are shown in the following table.

<i>Kind of Material</i>	<i>Number of Samples Tested</i>	<i>Amount of Material Represented by Each Sample</i>
Portland cement	470	200 barrels
Bituminous cements, oils and tars	120	8000 gallons
Bituminous pavements	370	1000 sq. yds.
Sands, bituminous and concrete	387	10 to 12 carloads
Stone and gravel	150	20 to 50 carloads
Paving blocks, cement blocks, tile, etc.	141	
	1638	

To test these various materials over 10,000 separate determinations were made, and over 6,000 test specimens prepared. It is not possible to estimate very closely the value of the material represented by these tests, but it is probably within the bounds of truth to fix it at between one and one and one-half million dollars. The entire cost of operating the laboratory, including salaries of all employees, is less than 1 per cent of the lesser of these sums.

Employees.—During the year there were employed in the laboratory in addition to the chief chemist, two testing engineers, one stenographer, one janitor, and a third testing engineer for a part of the time—part of these being carried on the payroll of the State Highway Department. During the year 1919-20, this force must be very largely increased to meet the demands made by speeding up of the state road work.

STATE MUSEUM.¹

At the beginning of the year it was anticipated that the Museum would be compelled to share its somewhat cramped quarters in the State House with other agencies of the State. The uncertainty as to the future naturally prevented making plans for special exhibits far in advance and retarded the regular work, since some preparation had to be made for the anticipated moving of collections. It was not until the middle of the year that a final decision was reached by the State House Commission to leave the Museum undisturbed.

¹Paragraphs under this heading were prepared mainly by Mrs. K. B. Greywacz, of the Museum staff.

The influenza epidemic, which closed so many schools and public gathering places during the autumn of 1918, also interfered with the Museum's work, but in spite of these handicaps, and the additional one of the absence of Miss Helen C. Perry, the Curator, in Europe on war work, the interest of both the general public and the schools in the Museum was well maintained. During Miss Perry's absence Mrs. Kathryn B. Greywacz served as Acting Curator.

Permanent exhibits.—Few changes were made in the list of permanent exhibits as given in the report of last year. A small collection of common butterflies of New Jersey has been added, and some of the numerous Indian relics in the possession of the Museum have been placed on view. Owing to limitations of space, the permanent exhibits comprise only a small part of the Museum material. They are none of them very large, nor are they highly technical in character. The choice of material and the manner of arrangement have been controlled by a desire to make them primarily interesting and instructive.

Special exhibits.—No special exhibits were held during the epidemic in September and October, but during the other months the following special exhibits were arranged:

July 1-27, 1918. A military exhibit contrasting the arms, uniforms, and equipment of soldiers in the Civil War with those of soldiers in the World War. The block model of Camp Dix was also included. Attendance 2,208.

August 5-30. An exhibition of Historical Costume Dolls consisted of a group of dolls dressed in the characteristic styles of various periods of development in America; also groups of French, English, Swedish, Dutch, Greek, Hindu, Japanese, Chinese, and Korean dolls. These were loaned by the Newark Museum Association, and Mrs. Elliott Cook, who had just returned from Korea. Attendance 1,662.

November 11-16. A collection of campaign posters, photographs of relief work from the French Pictorial Service, and a small model of a section of the front showing No-man's land, camouflaged tanks, airplanes, etc., was arranged to aid the United War Work Campaign. Each afternoon a campaign speaker addressed the children assembled to view the exhibit, and prominent artists of Trenton made sketches symbolizing the work done by different organizations. Attendance 772.

December 2-16. A Boy Scout Exhibit, prepared by the Scouts of Trenton and vicinity, attracted much attention. Part of the main

room and the corridor was taken up by the exhibit of the full equipment of a Boy Scout, a display of all badges, trail marks, articles of craftsmanship, trophies, drawings and maps, photographs, and a typical Boy Scout tent and camp fire with camping equipment. Demonstrations of scout work, including signaling, knot-tying, fire-lighting, first aid, etc., were given daily by various classes of scouts. The Museum was open Tuesday and Thursday evenings for this exhibit. Attendance 1,730.

December 17-28. A French War Poster exhibit of 60 war posters by the most celebrated artists of France was loaned to the Museum by Mrs. Warren Jay Winton and Mr. Edward T. Fitzgerald, of Detroit, Michigan. Attendance 1,012.

February 8-22, 1919. The exhibition of the work of the New Jersey Commission of the Blind, although it lasted only two weeks, again drew crowds. Hand weaving, basketry, sewing, knitting, and crocheting were exhibited. Charts on domestic science, history, geography, arithmetic, etc., showing the work of special public school classes for the blind were also on display. On the last three days of each week the blind themselves gave demonstrations of their handiwork. On each Saturday blind boys and girls demonstrated their methods of studying, and entertained the people by their singing and folk dancing. Attendance 2,282.

March 17—April 12. Rubber industries. The rubber manufacturers of the State responded enthusiastically to a request for the loan of material showing the processes of manufacture as well as their finished products. Tires and inner tubes, hose, buttons, shoes, rubberized cloth, mechanical rubber goods, combs, rubber bands, rubber soles and heels, fountain pens, etc., were among the articles shown. Attendance 2,210.

April 14-24. The College Club poster exhibit included a group of posters made by pupils of the Trenton schools to advertise a play given by the College Club of this city. Prizes were given by the Club for the three best posters. Attendance 643.

May 12-31. American Indian exhibit. This consisted of Indian relics of New Jersey; costumes, utensils, musical instruments, and war implements of the Plains, Ojibway, Menomini, Penobscot, and Iroquois Indians, loaned by the American Museum of Natural History, of New York City; a model of Indian life, made by the students of the State Normal School at Trenton; baskets of various shapes and designs made by the Pomo Indians of California; and a collection of Rinehart Indian portraits. Attendance 1,766.

June 2-30. The exhibits of handicrafts from the War Zone, and of Overseas Army Insignia, included sketches, textiles, pottery, and other objects from France, England, Italy, and Germany, collected in those countries by Miss Perry, as well as a complete collection of Overseas Insignia, with records of the activities of each division. Attendance 1,499.

Local school work.—During September and October, 1918, the schools of Trenton and vicinity were closed because of the influenza epidemic. This interfered with the special exhibits planned for those months. However, after the reopening of schools effective co-operation existed between the schools and the Museum. Monthly bulletins announcing current exhibits were sent to principals and Museum representatives, and many classes visited the Museum to study both the permanent and special exhibits throughout the year. The posters in the College Club poster exhibit were executed by pupils of Trenton schools. Students of the Normal School made and set up in the Museum the model of Indian life displayed during the American Indian exhibit. Volunteers from the Normal School assisted also with the Children's Story Hour.

Loan collections.—The Museum's lending collections have been steadily increased in number and variety. They now include industrial process charts of many of the leading industries, with accompanying literature; Riker mounts of common moths, butterflies, and insects; natural history cases of birds, animals, and fish; mounted colored pictures of birds, animals, fish, insects, trees, flowers, fruits, and minerals; and series of mounted official United States war photographs. Ten mounted pictures and four exhibits such as charts and Riker mounts or one natural history case, may be ordered by any school in the State at one time, may be kept for a month, then returned and exchanged for other material. New industrial charts, wood charts, nature study cases, and geological sets are in course of preparation. Thirty different classes of these loan collections have been prepared, with a total of 439 sets.

NUMBER OF LOAN COLLECTIONS CIRCULATED FOR THE SCHOOL YEARS 1917-1918
AND 1918-1919.

	1917-1918	1918-1919
Industrial process charts	189	500
Booklets on industries	114	230
Riker mounts	31	40
Mounted pictures	448	866
Natural history cases	2	19
	<hr/> 784	<hr/> 1655

Lantern slides.—During the year the lending of lantern slides has increased about 50 per cent. Throughout the summer all the lantern slides were gone over and those which were in poor condition were repaired or replaced, and a number of duplicate slides were purchased. About three hundred new slides were bought and added to the collection, including views of the great World War. It was realized that with the numerous demands upon the teachers many would not have time to prepare lectures from miscellaneous slides. Accordingly, a number of lantern slide lesson and lecture groups were arranged by teachers and other authorities on various subjects, each set of slides being accompanied by a manuscript, so that teachers could prepare their own lectures with a minimum of effort. These lecture sets were greatly appreciated and were in almost constant use. More of them will be arranged during the present year. Below is a list of the lessons and lectures already grouped:

Industrial: Rubber, silk, iron and steel, stone quarrying, paper-making, the manufacture of saws.

Geography and travel: Niagara Falls, our National Parks, Washington, D. C., South America, Through the Sunny South.

Natural history: Some interesting wild flowers, Families of flowering plants, Some familiar birds of New Jersey, Insects.

Physical geography: Volcanoes and earthquakes, Wonderful work of water, Weathering and decay of rock.

Forestry: Forestry in New Jersey, Planting and care of shade trees. Care of the farm woodlot.

Classical: Greek and Roman civilization, Greek and Roman antiquities.

Anatomy: Circulatory system, Nervous system, Digestive system. Respiratory system, Muscles, Anatomy of the head, Bones of the body.

Great World War: General lectures, Our boys at home and abroad, Air service here and abroad, Transportation problems in war. Guns and shells, Special features of modern warfare.

	1917-1918	1918-1919
Number of slides circulated	3671	7314

Traveling exhibits.—A number of exhibits have been prepared to lend to libraries and community centers throughout the State. They are as follows: Water-color sketches of wild flowers and mushrooms,

war photographs, industrial process charts, natural history cases, Riker mounts, and any other school-lending collections. This work will be enlarged next year.

Cooperation with State departments.—A conference of the directors of the State Department of Health, Child Hygiene, Public Instruction and Agriculture, and the Experiment Station, was held at the State Museum on June 27, 1919, to consider how their departments might cooperate with the Museum in supplying educational materials, such as slides, charts, and films, to schools and community centers. All approved the idea of centralizing the lending collections in the Museum and using it as the distributing agency.

Attendance.—Below is the attendance record for the year:

<i>Month</i>	<i>Number of Classes</i>	<i>Number of Pupils</i>	<i>Total Attendance</i>
July .....	..	...	2208
August .....	..	...	1876
September .....	..	...	1395
October .....	..	...	1170
November	10	283	1672
December	3	23	2801
January	4	116	1657
February	8	230	2970
March	23	539	2067
April	15	350	2292
May	5	122	2248
June	2	41	1499
	70	1704	23855
Average attendance per day			76
Average attendance per month			1988
Attendance for the year			23855

PERMITS FOR DIVERSION OF WATER.¹

The jurisdiction of the Department, as successor to the State Water Supply Commission, over the diversion of water for potable purposes, is set forth in Chapter 252, Laws of 1907, and Chapter 304, Laws of 1910. During the year the Board has acted upon four applications and four extensions as listed below. The application of the Elizabethtown Water Company et al., was one of the most important cases con-

¹Paragraphs relating to surface waters were prepared mainly by H. T. Critchlow, Water Engineer of the Department.

sidered since the passage of the above laws, and has emphasized the seriousness of the water-supply situation in the metropolitan district. The extensions in time have been requested largely on account of adverse conditions for doing construction work because of the war.

Elizabethtown Water Company et al.—On September 4, 1918, a petition was filed on behalf of the Elizabethtown Water Company, Plainfield-Union Water Company, Middlesex Water Company, Raritan Township Water Company and Piscataway Water Company for approval of their plans for obtaining an additional source of water-supply to the extent of 20 million gallons per diem from the Raritan and Millstone rivers at their junction near Bound Brook to supply through their pipe lines, which are all interconnected, territory containing approximately 200,000 inhabitants and numerous large manufacturing establishments located therein, and particularly along Staten Island sound and Newark bay between the city of Perth Amboy and the boundary line between the city of Elizabeth and the county of Essex. Public hearings were held in the State House, Trenton, on October 2, 9 and 16, 1918. Opposition to the granting of the application was made by the Pennsylvania Railroad Company, lessee of the Delaware and Raritan Canal Company, Miles Smith Corporation, City of New Brunswick, Calco Chemical Company and Bound Brook Water Company. Final argument was made before the Board, in the State House, November 6, 1918. The application was approved November 29, 1918, subject to the following reservations and conditions:

1. This approval shall constitute the State's assent to the diversion of water by the Elizabethtown Water Company, the Plainfield-Union Water Company, and the Middlesex Water Company, to the amount of 20 million gallons per diem as specified in the application. It shall not be held or construed to increase or confirm whatever rights to divert water from the said rivers or either of them, which said petitioners have by virtue of legislation enacted previous to the passage of Chapter 252, Laws of 1907, nor shall the acceptance by the petitioners of the conditions attached to this approval be held or construed to be a waiver by them of any such rights.

2. This approval of said plans shall not be held or construed to waive or in any way limit the right of the State to grant consent to other water companies or municipalities to take water from the said Raritan or Millstone River, or from either of such rivers or their tributaries, for public or domestic use.

3. This approval shall not be construed to grant or convey to the petitioners or to any one or more of them the right to supply water in any territory in which they do not now have, respectively, the right to supply water for public or domestic use.

4. The said petitioners, and each for itself, shall waive and surrender any right to divert water from the Raritan River and its tributaries which they

or any of them may have obtained by filing with the State Water Supply Commission, the predecessor of this Board, maps and plans within ninety days from June 17, 1907, and within ninety days from April 12, 1910, as provided in Sec. 2, Chapter 252, Laws of 1907, and in Sec. 2, Chapter 304, Laws of 1910.

5. The petitioners shall each pay to the State such annual charge for the diversion of water as is now lawfully made or may hereafter be lawfully required. They shall keep accurate records by meter or other approved method of the amount of water diverted, respectively, and report the same quarter-yearly to this Board, as provided by Sec. 7, Chapter 304, Laws of 1910, and any amendments thereof.

6. The Board hereby expressly reserves the right, in case it shall be necessary in the future to provide storage of storm waters along the Raritan and Millstone rivers or their tributaries for the purpose of supplying municipalities or water companies that may lawfully take water from the said rivers and their tributaries, to apportion the expense of providing the necessary storage among the petitioners and such other companies or municipalities as may at the time have a right to take water from said rivers, their tributaries, or either of them, for public or domestic use, as may be equitable.

7. The petitioners, at the request of the municipality of Bound Brook, the Bound Brook Water Company, or its successors, whenever made, and subject to such approval as may be necessary under Chapter 252, Laws of 1907, or amendments thereof, shall supply water to said municipality, or water company or its successor, at such terms as may be mutually agreed upon or determined by the Public Utilities Commission.

8. The said water companies shall, within thirty days after service of a copy of this approval upon them or upon their attorney, accept the same in writing, including the terms and conditions upon which this approval of said plans is made, and file such acceptance with this Board; and in case such acceptance shall not be filed within the said thirty days this approval shall thereupon become null and void.

Formal acceptance was filed December 27, 1918.

On January 28, 1919, a writ of certiorari in this case was allowed the city of New Brunswick by Justice Bergen of the Supreme Court. Testimony was taken on February 13 and May 14, 1919. The case was pending at the close of the fiscal year.¹

City of Newark—Contract with Butler Water Company.—On October 9, 1918, a request was received from the City of Newark for the approval of its contract with the Butler Water Company for the taking from said company the surplus water which it may be able to sell from its storage reservoir on Apshawa brook, just below the Macopin intake. The contract covers a period of three years, the quantity to be about 300 million gallons each year, to be taken only as needed by the City of Newark to supplement its supply during periods of drought. On

¹Since writing the above the Supreme Court has dismissed the writ and upheld the action of the Board in every particular.

November 6, 1918, a public hearing was held in the State House, Trenton, and the application was approved on the same date, subject to the usual conditions and limiting the amount to 300 million gallons per year for a period of three years, from October 2, 1918. Formal acceptance of the conditions imposed was received on November 26, 1918.

Borough of Wharton.—On October 12, 1918, the Borough of Wharton filed application for permission to take an additional water-supply from the Rockaway River, near the junction of Stevens Brook, for the purpose of supplying the Borough of Wharton and the inhabitants thereof. A public hearing was held on November 6, 1918, in the City Hall, Newark, at which representatives of Jersey City appeared in opposition to the granting of the permit. The application was approved by the Board on January 8, 1919, limiting the diversion to 500,000 gallons per diem during any month, also subject to the usual terms and the following special conditions:

Whenever it shall become necessary for Jersey City to provide additional storage on the Rockaway watershed, the Borough of Wharton shall be obligated to contribute to the cost thereof such sum as this Board, after hearing the parties in interest, may then determine to be equitable, or in lieu thereof shall provide at its own expense such storage as this Board may then order.

If it shall be established to the satisfaction of this Board after hearing the parties in interest that in consequence of the operations under this approval, Jersey City is compelled to purchase additional water to meet its needs, the Borough of Wharton, as ordered by this Board, shall reimburse the City of Jersey City for the water so purchased, the amount not to exceed the cost of the net quantity then so being diverted by the Borough of Wharton.

Formal acceptance of the conditions was received March 21, 1919. A writ of certiorari on the application of the City of Jersey City was obtained from Justice Swayze on April 19, 1919, and testimony taken before a Supreme Court Commissioner in Jersey City on May 15, 1919. The case was pending at the close of the fiscal year.¹

City of South Amboy.—On April 2, 1919, the City of South Amboy filed an application for permission to divert water from springs and wells located on property south of and adjacent to the City of South Amboy, in Sayreville Township, for the purpose of supplying water to the city and a portion of Sayreville Township, known as Morgan Station. A public hearing was held on May 7, 1919, in the State

¹Since the close of the year the action of the Board has been upheld by the Supreme Court and the writ dismissed.

House, Trenton, and the application approved on the same date, subject to the usual terms and conditions and limiting the amount of water to be diverted under the permit to an average of two million gallons daily during any month. Formal acceptance of terms and conditions was received June 27, 1919.

Lincoln Park Water Company.—On June 5, 1918, an extension of six months, from April 3, 1918, was granted the Lincoln Park Water Company for commencement of work on additions to its water-supply system. An additional extension of one year, from October 3, 1918, was also granted on October 2, 1918. These extensions were made at the request of the company owing to delays in obtaining the approval of their franchise by the Public Utilities Commission and the adverse conditions for doing construction work.

Commonwealth Water Company.—On January 8, 1919, an extension of six months, from January 1, 1919, for beginning construction work of laying water mains to West Orange was granted. An additional extension of six months, from July 1, 1919, was granted on July 2, 1919. These extensions were made at the request of the company on account of delay in the decision of the Public Utilities Commission, negotiations with the municipal authorities of West Orange, and on account of existing high cost of construction.

West Monmouth Water Company.—On April 2, 1919, an extension of time for completing work on the Englishtown water-supply system was granted to November 1, 1919. This was allowed upon the request of the company due to difficulty in obtaining materials.

Peoples Water Company.—On July 2, 1919, an extension of six months, from July 1, 1919, was granted the Peoples Water Company for commencement of work on its water-supply system at Keansburg, Monmouth County. This extension was requested by the company because of existing difficulties in obtaining materials and labor.

EXCESS DIVERSION CHARGES.

Charges for 1918.—Under the provisions of Chapter 252, Laws of 1907, and Chapter 304, Laws of 1910, all municipal corporations, corporations or persons diverting water either from surface, sub-surface, well or percolating sources, or from any combination of such sources for water-supply purposes, are required to keep accurate records by meter or other approved methods of the amount of water used,

and to report the same quarterly to the Board, as successor to the State Water-Supply Commission. For surface supplies, Chapter 252, Laws of 1907, makes certain provision for excess diversion charges.

For the year 1918 the Board fixed a rate of \$1.00 per million gallons, the minimum rate provided by law. Certification to the State Comptroller of the amounts due the State as per table below was made February 13, 1919, the amount due from each being equal in dollars to the figures shown in the last column. Of the sum certified, \$12,407.80 was paid before July 1, or within a few days thereafter. The cities of Bridgeton, Jersey City, Newark, New Brunswick, Rahway and Trenton are in arrears, and the amounts due from these municipalities have been certified to the Attorney General for collection.

EXCESS DIVERSION OF SURFACE WATERS, YEAR 1918.

Name of Company or Municipality	Average Daily Free Allowance in Gallons	Average Daily Excess Diversion in Gallons	Excess Diversion in Million Gallons and Charge in Dollars
Acquackanonk Water Co.	4,356,000	2,478,000	\$904.66
Bridgeton, City of	1,362,400	693,005	252.94
Burlington, City of	803,800	396,972	144.89
Butler Water Co.	280,000	346,320	126.41
East Jersey Water Co.	9,081,700	15,239,000	5,562.23
Frenchtown Water Co.	97,500	94,100	34.35
Hackensack Water Co.	21,712,166	10,476,245	3,823.83
Haledon, Borough of	297,400	102,600	37.45
High Bridge, Borough of	138,200	72,747	26.55
Jersey City	38,400,000	15,289,000	5,580.47
Lakewood Water Co.	376,500	15,167	5.54
Lopatcong Water Co.	400,000	700,000	255.50
Middlesex Water Co.	1,750,700	1,876,480	684.92
Monmouth County Water Co.	439,200	122,220	44.61
Newark, City of	36,241,666	13,654,224	4,983.79
New Brunswick, City of	2,566,371	3,777,065	1,378.62
New Jersey Zinc Co.	160,000	20,000	7.30
Newton, Town of	442,200	237,800	86.80
Rahway, City of	1,521,635	1,112,646	406.11
J. A. Roebling's Sons Co. ...	116,000	206,914	75.52
Somerville Water Co.	1,293,335	561,481	204.94
Tintern Manor Water Co. ...	3,144,609	1,150,004	419.75
Trenton, City of	13,490,000	4,954,167	1,808.27
Totals	138,471,382	73,576,157	26,855.45

Appeal of the Borough of Haledon.—On March 20, 1919, the Borough of Haledon filed written complaint, as provided by law, appealing from the charge for 'excess diversion for the year 1918. The charge was based upon the consumption as estimated by the Borough's consulting engineer, there being no means for actual measurement. A pitometer measurement was made by this Department on April 16-18, 1919, which resulted in the cancellation of the charge, the Comptroller being so notified on May 8, 1919.

COLLECTION OF BACK CHARGES.

Of the \$51,737.03 reported last year as due the State on account of unpaid back charges, the sum of \$5,082.16 was collected from the Acquackanonk Water Company and the East Jersey Water Company. Suit was brought in the Supreme Court against Jersey City and judgment secured in the sum of \$22,285.34, being the amount due for six and a half years' back charges. An appeal has been taken by Jersey City to the Court of Errors and Appeals and the case was pending at the close of the year.

In accordance with the advice of the Attorney General, the Department has not pushed cases against other delinquents pending the final determination of this suit, since the same points of law are involved in all.

CONSUMPTION FOR THE YEAR 1918.

The reports from 206 public water supplies throughout the State (which include all the more important systems) show that during the year 1918 a total population of about 2,853,000 persons was supplied with about 332,900,000 gallons of water daily, or at an average rate of 117 gallons daily per person. The following table gives additional information on consumption, etc.:

PUBLIC WATER SUPPLIES IN 1918.

Source of Supply	Number of Systems	Population	Consumption—Gallons Daily	
			Total	Per Person
Surface	48	1,872,121	224,421,000	120
Underground	140	646,795	68,611,000	106
Combination	18	334,300	39,870,000	119
Totals	206	2,853,216	332,902,000	117

This tabulation shows that of the total consumption 67.4 per cent. is from surface sources, 20.6 per cent. is from underground sources and 12.0 per cent. is from combination sources. Segregating the surface and underground water included in the combination sources, the percentages of the total consumption become 72.8 per cent. surface, 27.2 per cent. underground.

PLANS FOR DAMS.

City of New Brunswick.—On November 21, 1918, the City of New Brunswick made application for approval of its plans to increase by 18 inches the height of the arch dam being constructed on Lawrence Brook, near Weston Mills, plans for which were approved by the State Water-Supply Commission on March 28, 1916. Approval was granted on November 29, 1918, and the structure was completed in January, 1919. Inspections were made on this work as recorded below.

No other applications were received during the fiscal year, due, no doubt, to the existing difficulties connected with construction work. Inspections of work carrying out plans previously approved were made as follows:

Montclair Boy Scouts' Association—Dam near Oakland, Bergen County, July 5, 1918.

Glenwild Lake Company—Dam about one mile north of Butler, in Passaic County, July 11 and September 25 (final), 1918.

Fig. 8. Portable pitometer measuring flow in water-main.

Fig. 9. New Brunswick water supply. New arch dam on Lawrence Brook.

City of Newark—Oak Ridge Reservoir dam, August 16 and November 21 (final), 1918.

City of New Brunswick—Concrete arch dam on Lawrence Brook, August 19, November 27, December 4, 1918, and January 27, 1919 (final).

Inspections of old dams.—Chapter 243, Laws of 1912, and supplements thereto, authorize the Board of Conservation and Development, as successor to the State Water Supply Commission, “when provided with sufficient funds, to create a department for the inspection of existing dams and reservoirs and for the supervision of the erection of new dams and reservoirs hereafter to be constructed, to the end that said structures may be built with due regard for the safety or property and life which might be endangered by the improper construction of any dams and reservoirs in this State or upon streams between this and any other state.”

From lack of funds it has been possible for this Department, since it assumed charge of the work, to inspect only new structures and any existing dams concerning the safety of which question has been raised. Further than this, it is not possible to go under present conditions, although the importance of, and the economic saving which would certainly result from, carrying out a thorough inspection of all the dams in the State is realized. It is hoped that sufficient funds will be made available to carry out this important provision of the statutes. It is estimated that an appropriation of \$5,000 should be made for a number of years for this work.

Legislation.—Upon the recommendation of this Department, the Legislature of 1919, by Chapter 44, Laws of 1919, amended the existing law so that this Department must pass upon the plans for all new dams which raise the waters of any river or stream in this State, or between this and any other state, more than 5 feet above their usual mean low-water height, when the drainage area above the same is one square mile or over. Repair of old dams, which raise the water less than 8 feet above mean low-water height, may still be made without the State's consent, providing the area of the water surface created is less than 100 acres. This now gives the State jurisdiction over practically all of the important structures which may be built, although it would be better if the drainage area limitation were reduced to one-half a square mile, as required by some other states.

EFFECT OF METERING ON WATER CONSUMPTION.

The effect of meters on the consumption of water has been studied as far as conditions permitted and tabulations made of 176 water-supply systems in the State with reference to the percentage of the taps metered, using the data for 1917. While the returns are incomplete and inaccurate in certain cases, especially where no accurate means of measuring consumption are available, the following summary compiled from these tabulations is of interest in connection with this general question:

SUMMARY OF DATA SHOWING RELATION BETWEEN METERING AND CONSUMPTION OF PUBLIC WATER SUPPLIES

Percentage of Taps Metered	Number of Systems	Population Supplied	Consumption	
			Million Gals. Daily	Gals. Daily Per Capita
0- 25	93	819,278	118,620	145
25- 50	10	228,893	28,494	125
50- 75	18	691,149	67,597	98
75-100	55	1,008,428	90,510	90
Totals	176	2,747,748	305,230	122

MEASUREMENT OF WATER CONSUMPTION.

In order to afford certain water companies and departments a practical means of measuring their water consumption, and to determine pump slippage, as well as to check up the means of measuring used by other systems, this Department purchased a pitometer outfit during the fall of 1918, and has conducted tests varying in time from 6 hours to 3 days, as follows:

WATER CONSUMERS

You Can Have More Coal
for Your Cellars

Stop! Look! Listen!

All Waste At Fixtures For Leaks

Uncle Sam says—Save Food and Fuel

WE SAY—

SAVE WATER also

Because Saving Water means Saving Coal

50,000 Tons of Coal a Year will be Saved

in the Pumping Stations of New Jersey
when **Waste of Water** is stopped

Remember the Zero Weather of Last Winter and

STOP WASTE NOW

Authorized and recommended by U. S. Fuel Administration
for New Jersey and the State Department of Conservation
and Development.

Individual effort will do much
to check waste and conserve
the supply of water and coal.

(over)

835 gal. per day
5,865 " " week
203,940 " " year

Fig. 10. Copy of circular used in "Save Water to Save Coal" campaign.

Date	System	Remarks
Oct. 30 to Nov. 1, 1918..	Bridgeton Water Department..	Pump slippage test.
April 7, 1919.....	Frenchtown Water Company..	Pump slippage test.
April 15 to 18, 1919....	Haledon Water Department...	Gravity system.
May 21 to 23, 1919.....	Washington Water Company...	Gravity system.
May 28 to 30, 1919.....	Hackettstown Water Depart- ment	Gravity system.
June 5 to 7, 1919.....	Lopatcong Water Company....	Gravity system.
June 16 to 18, 1919.....	Buckhorn Spring Water Com- pany	Gravity system.

Several of these tests showed that the actual consumption was in excess of the reported consumption, whereas in other instances the estimated and reported use was larger than the actual use.

SAVE WATER CAMPAIGN.

In cooperation with the State Fuel Administrator for New Jersey, this Department conducted a "Save Water to Save Coal" campaign during the fall of 1918. About 225,000 circulars and 3,000 display posters were distributed to the water consumers throughout the State who were supplied with water which had to be pumped. While the campaign slackened after the signing of the armistice, the State Administrative Engineer's report estimated that 10,000 tons of coal were saved as a result of this effort.

ROUND VALLEY PROJECT.

In connection with the possible future utilization of the Raritan River watershed for potable water supplies, some preliminary studies have been made of the practicability of utilizing Round Valley, in Hunterdon County, as a reservoir site. This is located 5 miles southeast of High Bridge, and is so situated that it could be used for storing the storm waters of the South Branch of the Raritan River above High Bridge. It appears from this preliminary investigation that a gravity supply of about 50 million gallons daily could be made avail-

able by diverting the flood waters about 2 miles above High Bridge and conducting it through a closed conduit about 8 miles in length. This reservoir would furnish a gravity supply to the population centers in the lower Raritan Valley, which are from 18 to 40 miles distant.

STREAM GAUGING WORK.

Previous work.—In connection with the preparation of the report on Water Supply, published in 1894, the Geological Survey maintained gauging stations on a number of streams for short periods—generally less than three years, but with the completion of the report the stations were abandoned.

About 1901 the Water Resources Branch of the United States Geological Survey re-established some of these and opened other stations and maintained gauge readers for a number of years. Subsequent to 1907, the State Water Supply Commission cooperated with the United States Geological Survey in this work, and for a time carried it on alone after the national organization, because of lack of funds, was compelled to curtail its activities. The State organization was in turn obliged to abandon this work in 1914 because of the withdrawal of legislative support.

The value of a stream-gauge record increases in geometrical ratio with its length. A record of the flow of any river for a single year has comparatively little value, since the rainfall in New Jersey on the same watershed—as, for example, the Passaic—has been known to vary from 36.68 inches to 70.88 inches, and the flow from 16.56 to 42.23 inches. Records of five to ten years are of course of much greater value in showing possible extremes of low and high flows, but in such short periods there is no assurance that either the minimum or the maximum flow has been shown. It is manifest that in making estimates of the yield of a given watershed for potable supplies, it is essential that the minimum flow be known, lest the capacity of the stream be overestimated and the supply fail in severe drought. A knowledge of the maximum flow is necessary in all estimates of water power, or reservoir and dam construction. If sufficient allowance is not made for flood waters, dams are washed out, highways flooded, bridges destroyed and other property damaged.

Water-supply problems in New Jersey are of increasing importance. More and more this Department, under the operation of the Water-

Diversion act of 1907, is called upon to pass upon the complicated problems involved in the equitable distribution of the surface waters between contending municipalities. The applications of the Elizabethtown Water Company et al. and the Borough of Wharton (see pp. 42, 44) are cases in point. The stream-gauge records already available, in spite of their discontinuity, are of some value, and they can be supplemented by the excellent studies on stream flow and accompanying formulæ made by C. C. Vermeule for the Geological Survey, but these data are not sufficient. Long-time records of the actual flow of many of our streams are needed, and, ultimately, must be obtained if the State is to administer its water resources wisely and justly. The judgment of the Department that this important work should be resumed and continued without interruption has been confirmed by numerous letters recently received from Boards of Fire Insurance Underwriters, water-works engineers and others, all emphasizing the importance of accurate stream-flow records.

Their necessity has been made manifest from another viewpoint. It is becoming increasingly evident that before many years the Raritan River must be developed for potable-water purposes by the construction of storage reservoirs. These may destroy, or, at least, interfere with many valuable water powers now in use, notably that at High Bridge. Whether this development ultimately takes place through private, municipal or state agency, accurate record of the flow of that river will be indispensable in solving the questions of stream yield, storage capacity and value of water rights. Without them, recourse must be had to estimates based on formulæ, which, however sound they may be, do not carry the weight of actual measurements.

In order to meet the situation developing on the Raritan River, the Department has, in part, through cooperation with the Taylor-Wharton Iron and Steel Company at High Bridge, established two gauging stations. It purposes also to ask for funds in its budget request for next year in order to extend this work.



**Fig. 11. How pine trees grow in South Jersey. Loblolly pine from seed
planted in 1908.**



**Fig. 12. Oak forest in Burlington County which is producing a cord of
wood per acre each year.**

Report of the State Forester

ALFRED GASKILL.

The Division of Forestry and Parks has resumed its full activities, and with the ending of the war finds a stimulated and broadened interest in forestry. War needs have attracted attention to the Nation's waning lumber supply, and emphasized the necessity of providing for the future. This State is a large consumer of lumber; its demands are sure to increase, yet its forest owners are doing little to assure a home supply. This situation is not ours alone, but is so universal that a series of conferences, called by the Chief of the United States Forest Service, is trying to formulate a program, applicable to every part of the country, which shall stimulate local activity and lead to positive, productive measures. In several of these conferences the State Forester has had a part.

Whatever shall be the decision with respect to a general or federal policy, it is clear that New Jersey must look after her own interests. Our two million acres of woodland yield less than one million dollars a year net to their owners; they are easily capable of yielding ten millions; they are assessed at not over six millions, yet should yield taxes on 200 millions. Even though our forest area shall be reduced by one-half, as is possible, the remainder can provide five times as much lumber for home needs as the whole now does.

New Jersey, as a manufacturing State, needs lumber in increasing quantity and at the lowest possible cost; as an agricultural and forest State, she can, and should, produce more and import less. To accomplish this is the aim of the Department.

The abundance of lumber in this country, and the low price of stumpage in most sections, unquestionably have discouraged investments in growing timber. It is becoming clear, however, that with the exhaustion of the country's virgin store—most of it in the South and West now—recourse must be to local forest areas, and that the actual cost of producing lumber will become a factor as it never has been. This is our opportunity and to the extent that our forest owners shall

anticipate the inevitable shortage of lumber, and the accompanying high prices, they will profit. Present lumber prices are no criterion for the future with mounting transport charges current rates are possible only because investors in Western and Southern stumpage are forced to sell. The forests of this State contain no great quantity of timber immediately available; but upon thousands of acres trees are well started and can be developed to meet a lumber need that is sure to be imperative in the near future. Our advantage in respect to transportation is manifest.

The argument for forests as social and æsthetic elements in our civic life suffers nothing in this presentation. Vigorous, productive forests are infinitely more attractive than our abused remnants. It is too late to plead for the preservation of virgin forests in New Jersey.

NEW JERSEY'S FORESTS.

From careful studies of our forest areas it is clearly indicated that our two million acres of woodland should be curtailed by perhaps one-half, and the protection and management of the rest so intensified that there shall be a rising, instead of a falling, total production of lumber. The reason for this is that much of our soil, especially that in South Jersey, is of agricultural quality, and therefore should be cleared as rapidly as the demand for farms permits it. The remainder, about 1,250,000 acres, is, with insignificant exceptions, adapted to the rapid production of timber trees. The popular belief that South Jersey soils are uniformly sterile, and the overgrowth scrubby, is wrong. Scrubby growth is commonly the result of man's agent—fire, not of nature's poverty.

The task before us is to control the fires and thereby prove that real trees will grow; then to induce the owners to introduce forest management and to care for their forests as productive property. It is necessary to plant new forests only where fire or cleaning has destroyed the natural growth completely. Planted forests, indeed, usually are better than those produced from abused remnants, but the greater cost is not often justified under present conditions.

Evidence is found upon every hand that our forests are in better condition than they were a few years ago; sales and tax assessments prove it. The progress seems to be distressingly slow; the public is learning the lesson that it must learn and every movement is forward.

FOREST MAP OF NEW JERSEY

1919

Scale of miles
0 1 2 3 4

DEPARTMENT OF
CONSERVATION & DEVELOPMENT
TRENTON

LEGEND

-  50% to 100% FORESTED
-  25% to 50% FORESTED
-  UNDER 25% FORESTED
-  STATE FORESTS

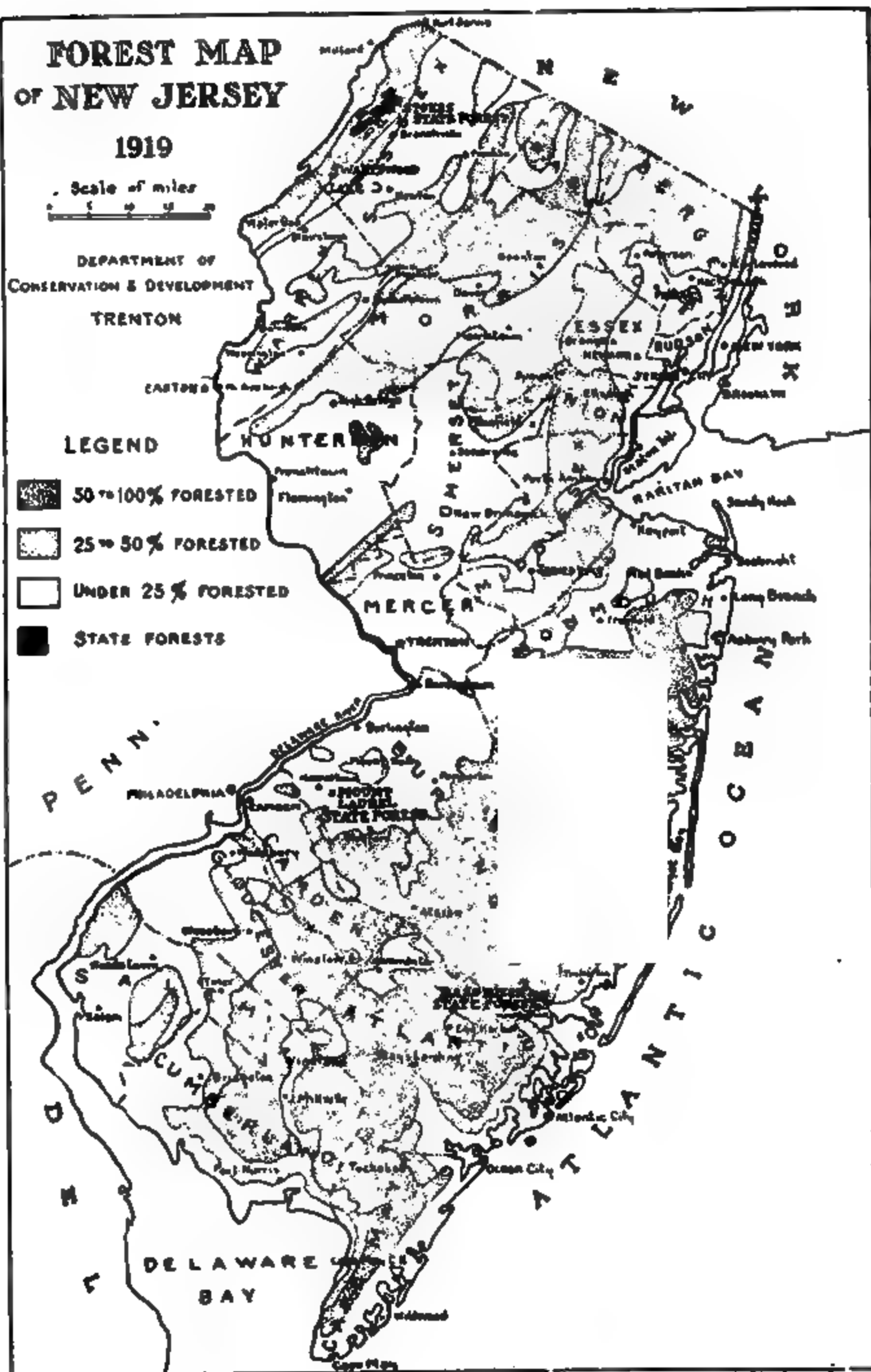


Fig. 13.

FOREST TAXATION.

Several states have tried to encourage the practice of forestry by offering tax inducements. The very limited, or entire lack of, success that has attended these efforts may be due to cumbrous procedure or faulty method; it probably rests largely upon a lack of security—against fire, against insects and disease, against tax *uncertainties*. All these insecurities handicap the effort to redeem our forests from neglect and abuse. Jersey is making progress against the fires; destructive insects and disease are well in hand; it is time to consider the bearing of the tax burden. This point was presented to the State Tax Commission, which began to hold hearings early in the summer. It is urged that the subject be given the fullest discussion, since it is clear that the State and the Nation must find a way to stimulate timber growing.

FOREST FIRES.

Though there is ground for encouragement, the State Firewarden's report makes it clear that a greater effort is due before our forests shall have the measure of security that they must have to be productive. It cannot be too strongly emphasized that there can be no forests, and no forestry, except upon a basis of fire control. The gains that have been made are positive; the woodlands in general are more secure, and therefore more highly valued than they ever have been. Our organization is one of the best in the country; our methods are approved by being adopted in other states, yet there still are fires, by far too many, and by far too destructive.

As a volunteer fire department proves inadequate for a city, so the volunteer, or semi-volunteer, forest fire service is inadequate. There must be more men in service, particularly during the seasons, spring and fall, when the hazard is greatest. In no other way can the emergency be met.

HELPING FOREST OWNERS.

A close second to the Forest Fire Service is the effort to induce woodland owners to undertake forest management with a view to making their properties profitable. That it can be done with little

difficulty and at practically no cost is demonstrable by numerous examples. (See p. 61.) The difficulty is to break down the ancient belief that a forest has no future. To overcome this, and to establish examples of practical forestry in every part of the State, it is urged that an appropriation be made for a Forester, who, in co-operation with the State and Federal Agricultural Extension Service, shall give his whole time to showing the farmers—or any woodlot owner—how to make their poorer land profitable. There is a reasonable hope that Congress will make liberal provision for this highly important work. Pending an extension of their abilities the State Foresters will continue to study and advise regarding the management of any private forest, or land to be planted, without cost except for traveling expenses. This service has been accepted by a number of owners, though we should like to hear from more. Details of the offer are available in a published circular.

LUMBER AND WOOD MARKETS.

Under the stimulation of increased transportation costs, and of the high price of coal, the demand for many kinds of forest products has been, and continues to be, good. Standard railroad ties bring better prices than they ever have brought, but mine ties and timbers are stagnant. As these are in the main the product of forest cleanings it is unfortunate that there is not a better demand. There is no difficulty about selling box boards, good basket logs or oak timbers.

With the cessation of war demands the market for black walnut, white ash and locust has fallen off, yet the amount of these woods that was collected in the State to satisfy the Nation's need is proof that our resources were greater than anyone suspected; also that our State still produces valuable lumber of several kinds. Unfortunately it has not been possible to get a record of how much was made available.

The firewood cut in anticipation of last winter's need has been held over in some sections, though to nothing like the extent that it has been in New England. Yet, here as there, the effect of the wood fuel campaign has been to revive in large measure the use of wood as domestic fuel. This is fortunate because we need a constant wood market to take care of the low-grade product of our forests. It is good also, in that interest in forestry is stimulated and that a home

product takes the place of an imported product (coal). It is our policy to encourage the use of wood fuel, because we have it in excess and our forests will be the better for the removal, carefully carried out, of course, of at least 200 thousand cords a year. At the present price of domestic coal wood is cheaper in many parts of the State.

Our index of lumber and wood buyers grows in value and is made use of by many citizens who have material for sale. Markets are not sure, especially for small lots, yet our aim is to bridge the inevitable gap between producer and consumer. This service is free.

STATE FORESTS.

The State's forest holdings have been increased to 17,151 acres. Penn Forest has suffered by a serious fire which destroyed or badly injured 700 acres of thrifty young pine; Lebanon Forest was gravely threatened and had 200 acres burned, and on Stokes Forest two small fires started but were soon controlled. The damage is estimated at \$5,000; the total cost of subduing the fires was \$319.62. We thus are continually threatened by fire, and, as this season, lose in a day the tree growth of years. The other properties have escaped damage under fire protection.

The fire lookout erected on Stokes Forest last fall has proven its value by providing for the detection of fires in that section while they were small.

A lumbering contract for the removal of dead chestnut, and mature timber of other species, from the Stokes Forest was suspended because market conditions prevented a complete utilization of the trees felled. It is better to wait awhile than to waste material that cannot be marketed.

The Forests are growing steadily towards self support. Meanwhile a small income from wood, moss, cranberries, etc., is recorded. (See p. 30.)

The value of the State Forests, especially that in Sussex County, as pleasure grounds is increasing. A circular issued in July inviting campers to use this property caused many people interested in outdoors to turn to that section of the State. The roads and trails by which the property is made accessible are being improved, though much too slowly. There is not the slightest reason why the State's

forest lands should not yield a double crop—pleasure and profit. Only while they are being transformed from waste areas to productive areas need they involve a maintenance charge.

The experimental plantations and silvicultural studies established on all the Forests give promise of important results in time. No comment upon them need be made now.

The proposal that the Stokes tract be enlarged to include the greater part of the Kittatinny Mountain crest, and developed as a great State Forest Park, is approved in many quarters. The public needs a forest playground; the cost is not great, the benefits are many, the State can afford it.

The locations of the State Forests and of the proposed Forest Park, are shown on the map. (p. 56.) The State Forests are described as follows:

STATE FORESTS.

Bass River Forest.—Ranger, Samuel Budd Allen, New Gretna.. 1,633 acres

Is in Burlington County, six miles northwest of Tuckerton, and is typical of the so-called "pine barrens." A considerable number of experimental plantations and several well developed experimental thinnings are on it.

Jackson Forest.—Ranger, Edward Rhein, Cassville..... 43 acres

Is in Ocean County, 10 miles west of Lakewood on the New Egypt road, and carries a forest of nearly pure pine about 35 years old. It is used to demonstrate the methods of practical forestry and as a resting place for travelers.

Lebanon Forest.—Ranger, Victor Bush, Pemberton..... 4,899 acres

Is in Burlington County, nine miles southeast of Pemberton, and contains pine, oak and cedar. Several experimental plantations and more recent thinnings are on it, but it is used largely as a demonstration in fire control under particularly difficult conditions. Considerable fire damage has been suffered since the acquisition of the property, but it is in better condition in every way than when it was acquired. A portion of the area is under agricultural development by the State Colony for Feeble-Minded Males at Four-Mile.

Mount Laurel Forest.—Ranger, Harvey Darnell, Moorestown... 21 acres

Is an isolated tract of hardwood and pine in Burlington County, three miles southeast of Moorestown. It is peculiarly accessible and susceptible to forest management, and because of very complete and successful thinning and plantings seven years ago, has unusual value as an example of applied forestry.

MODERN SCHOOLHOUSES, SHADED AND UNSHADED.

Fig. 14. No shade and no ornament—bare and unattractive.

Fig. 15. Too much shade—the school rooms are darkened.

<i>Penn Forest.</i> —Ranger, George L. Inman, Chatsworth.....	2,764 acres
Is in Burlington County, six miles southeast of Chatsworth.	
It is a tract of almost pure pine in the heart of the wilderness. The forest on much of it is in better than average condition and affords a pointed example of the value of fire protection in developing timber growth under typical conditions in "The Pines."	
<i>Stokes Forest.</i> —Ranger, Paul B. Haines, Branchville.....	7,231 acres
Is in Sussex County, two and a half miles west of Branchville. It is typical of absolute forest land in North Jersey. Under fire protection it is rapidly developing in value, and it has great possibilities as a park. Roads, trails and camping sites are being provided as fast as facilities permit. Through recent additions the forest is now easily accessible from the highway in Culver's Gap and is available for use by a limited number of camping parties.	
<i>Swartswood Lake.</i> —Ranger, Paul B. Haines, Branchville.....	560 acres
Is in Sussex County, seven miles northwest of Newton. It consists of Swartswood Lake, with an area of 544 acres, and eight adjacent pieces of upland embracing 16 acres. It is maintained for the use of the public as a park and recreation spot.	
Total	17,151 acres

STUDIES, EXPERIMENTS AND DEMONSTRATIONS

Forestry as a comparatively new art in this country lacks much in the way of definite knowledge concerning the relative value of species, the rate of tree growth under various conditions, methods of utilizing timber, etc. To satisfy this need numerous plantations, improvement fellings, and other investigations have been undertaken during the past twelve years, some on State land, others in cooperation with private owners. In a few cases results of practical value have been secured, others must run for many years. As opportunity is found the solution of new problems is undertaken. Permanent records are made of all determinations.

One suggestive example is that of Mount Laurel Forest (see p. 60), which was improved in 1912 by a felling that yielded \$15.00 an acre net. Another is found in a "thinning" made in young oak on Lebanon Forest in the same year. From measurements made this year the tract upon which forestry (thinning) was practiced had produced wood at the rate of seven-tenths of a cord per acre per year, whereas on an adjacent control plot the trees had grown at a rate of only one-tenth of a cord an acre and year.

An especially interesting study now under way aims at discovering a means of killing tree stumps with chemicals, and thereby reducing the cost of clearing land. Labor and explosives are so high now that the old methods are almost prohibitive.

The Department also tries to increase the public's knowledge of forestry and its methods by furnishing lantern slides, with lecture outlines (see p. 40) or providing lectures to schools and for public meetings.

STATE COLONIES.

The Colony for Feeble-Minded Males, established in 1914 on Lebanon Forest, has developed steadily and now has one hundred inmates. Though it has been possible to get but little aid from the boys in developing the Forest they have been of service in fire control, and it is expected that with larger numbers some can be used to look after plantations and roads to make fire lines, etc. The land devoted to this institution is serving a much higher purpose than it ever could in forest; the neighborhood has been stimulated and the value of the soil for farming demonstrated. The Forester is authorized to make available for similar use any other available area on the State Forests; he renews his recommendation that a second feeble-minded colony be located on the Stokes Forest in Sussex County for the particular benefit and advantage of north State interests.

SHADE TREES.

Interest in shade trees has been greatly stimulated by the campaign conducted by the American Forestry Association to have trees planted as memorials to soldiers killed in the war and to have the highways shaded and maintained as "Roads of Remembrance." New Jersey's endorsement of this effort was a matter of course because the State, her communities and her people have long stood for the utmost extension of tree shade. Many memorial trees have been planted, more will be, and roadside care, including tree protection and tree planting, is an accepted part of the State highway program. It is expected that next year will see a systematic development of this program in which the State Highway Department and this Department will cooperate.

MODERN SCHOOLHOUSES, SHADED AND UNSHADED.

Fig. 16. An attractive natural setting—no tree planting and few shrubs needed.

Courtesy of Dillon, McLellan & Beadell, Architects.

Fig. 17. Shade and shrubbery well disposed.



Shade tree commissions.—There now are 92 shade tree commissions—or bodies having similar powers—in as many communities in the State. With resources of approximately \$300,000 a year these agencies give Jersey a standing in respect to street shade that is scarcely equalled anywhere. Several of our cities have a Nation-wide reputation for the efficiency of their shade tree organization. The law as last revised appears to meet every requirement. It is urged that every community take advantage of this law in behalf of the trees, of the people who enjoy them and of the material interest involved. The importance of the latter is indicated by the estimate made in 1914 that the street and roadside trees in this State are worth not less than 19 million dollars.

Cooperation with public service companies.—Practical cooperation has been established with two electric companies by which difficulties with property owners, or with shade tree commissions, are adjusted—usually before any injury has been suffered. This effort is capable of considerable extension.

State aid.—The Department's foresters undertake to help anyone—individual, or public body, that asks for advice; they seek to be useful to shade tree commissions and institutions. But the service that is possible, and that should be rendered, is limited by a lack of competent men. The State needs an arborist who, under the direction of the State Forester, would devote his whole time to shade tree interests. Tree planting is the least important part of the work to be done; the guidance of an expert is necessary to guard against enemies and disease, to repair injuries, to keep the trees healthy and vigorous. It is urged that provision be made for this service.

School grounds improvement.—It is necessary again to record little progress in the effort to have public school grounds tastefully laid out and systematically cared for. No fault in this situation attaches to the Department of Public Instruction (figs. 14-17).



Fig. 18. Forest fire lookout on Kittatinny Mountain.

Fig. 19. Fighting a forest fire. "Sanding out" the fire line on a ground fire, which has not yet mounted to the crowns.

Report of the State Firewarden

C. P. WILBER.

The tabular and statistical matter in the report following are for the calendar year 1918. The general statement of conditions and progress is for the period from January 1, 1918, to July 1, 1919. This arrangement is necessary because the normal division of the fire season coincides with the calendar period and it is advisable because similar statistics for the entire country are based upon the calendar year, and comparisons upon any other basis are difficult, if not impossible.

THE FIRE SEASON.

The active danger season for fires in 1918 began unusually soon because of the early spring weather in March. High winds and unseasonably fine weather created a difficult fire situation, because of which nearly one-third of the total fires for the year occurred in this month, including almost all of the year's serious and notably large fires. The weather in April and May was far more favorable than ordinarily to fire prevention. Several brief dry periods, during this season of spring "clearing up," accounted for the occurrence of a large number of fires, but few became large or serious.

With the opening of June, full summer foliage and continued wet weather so reduced the fire menace that fires were almost negligible both in number and size. Similar conditions continued early in July, but an almost total absence of rain after the middle of the month and persistent dry weather during August, which was one of the driest on record, created an unusual midsummer fire season. Despite the greatly increased number of fires which these conditions induced for this period, there were but two notable fires, whose remote and inaccessible location together with unseasonably high winds permitted them to develop into serious proportions.

September brought some, though slight, improvement in the situation, but October, with not more than one-third the normal rainfall,

and continuing drouth in November, created a most hazardous fire period. In spite of this physical situation, of the year's total of 796 fires, only 123 are recorded under these three months, and of these more than 60 per cent occurred during the gunning season. In December very unusual climatic conditions of warmth and drouth continued the active fire season well toward the end of the month. This increased the number of fires during this month to nearly three times the normal. None of them, however, were allowed to become serious.

FOREST FIRES BY MONTHS

<i>Month</i>	<i>Number of Fires</i>	<i>Per cent of Total</i>	<i>Month</i>	<i>Number of Fires</i>	<i>Per cent of Total</i>
January	4	..	July	67	8
February	9	1	August	29	4
March	233	30	September	18	2
April	194	25	October	26	3
May	99	12	November	79	10
June	9	1	December	29	4

NUMBER AND AREAS OF FIRES.

(See Tables 1 and 2.)

The total number of fires reported for the last calendar year is 796, but little more than for the eighth months period covered by the last report and less than for any of the four years previous. Of this number 29 per cent, or 229 fires, burned less than 2 acres, 63 per cent burned less than 10 acres and but 10 per cent burned more than 100 acres, an improvement over the last full 12-month period, despite extremely difficult and unusual conditions both of fire prevention and fire control. The average area per fire (85 acres) and the average damage per fire (\$88) are agreeably lower than for any of the last five years.

The total area burned was 67,272 acres and the total loss recorded \$69,835. (See Tables 1 and 4.)

The last half of the fiscal year from January 1 to June 30, 1919, was marked by an unusually difficult Spring season and a large number of fires. Again the lack of adequate patrol and lookout facilities was clearly shown by the fact that, where the limited number of men and funds permitted patrolling by the present State force, fires were fewer and bad fires entirely lacking. Also, in areas controlled by

existing fire lookout stations, large fires did not occur, though many fires were started in some of these sections.

As has often heretofore been pointed out the larger and more serious fires occur in every case because of but two conditions, either abnormal drouth and wind together or delayed discovery, except where both of these conditions combine. The number of fires burning hundreds of acres each is slightly less than heretofore. These conflagrations, which universally occur in remote locations and under wilderness conditions, cannot justly be expected to be prevented in any effective or general way until an adequate system of prompt detection is provided through a lookout system (see p. 75).

TABLE 1—FOREST FIRES IN 1918 AND IN PREVIOUS YEARS.

Years	No. of Fires	Total Acres Burned	Acres per Fire	Total Loss	Loss per Fire
No organized service, incomplete reports.					
1872		100,000		\$1,000,000	
1880	54	71,074	1,316	252,240	\$4,671
1885		128,000		1,128,000	
1895	49	66,120	1,349	600,000	12,245
1902	65	98,850	1,520	169,323	2,605
1903	79	85,046	1,076	305,744	3,870
1904	81	41,530	512	193,413	2,388
Organized fire service.					
1907	167	11,525	69	11,647	70
1908	533	52,978	100	64,536	121
1909	563	93,525	166	133,944	238
1910	611	81,452	133	127,850	209
1911, Forest Fires	289 }				
Embryo Fires†	239 }	64,404	122	86,940	165
1912, Forest Fires	214 }				
Embryo Fires†	331 }	26,291	48	21,501	39
1913, Forest Fires	311 }				
Embryo Fires†	367 }	53,823	77	67,205	99
1914, Forest Fires	396 }				
Embryo Fires†	451 }	78,655	92	83,880	99
1915, Forest Fires	549 }				
Embryo Fires†	467 }	150,258	147	209,090	207
1916, Forest Fires	269 }				
Embryo Fires†	314 }	51,654	88	69,001	118
1917, Forest Fires	486 }				
Embryo Fires†	385 }	92,479	106	79,335	90
1918, Forest Fires	567 }				
Embryo Fires*	229 }	67,272	85	69,835	88

†Burned less than 5 acres.
*Burned less than 2 acres.

TABLE 2—FOREST FIRES BY RELATIVE AREA BURNED, AND BY COUNTIES, 1918.

COUNTY	NUMBER OF FOREST FIRES					Total Embryo Fires (less than 2 acres)
	2-10 Acres	11-100 Acres	101-1000 Acres	Over 1000 Acres	Total	
<i>North Jersey—</i>						
Bergen	15	9	1	.....	25	14
Hunterdon	2	.....	2	.....	4	4
Morris	44	25	6	.....	75	25
Passaic	11	15	5	.....	31	11
Somerset	15	5	2	.....	22	6
Sussex	15	12	1	.....	28	10.
Union	4	1	1	.....	6	.....
Warren	13	3	1	.....	17	18
Fires that burned in more than 1 county .....	.....	.....	.....	.....	.....	.....
Totals	119	70	19	.....	208	88
<i>South Jersey—</i>						
Atlantic	29	37	16	2	84	37
Burlington	12	6	5	.....	23	7
Camden	12	12	1	.....	25	20
Cape May	14	16	3	.....	33	13
Cumberland	28	28	12	1	69	10
Gloucester	4	8	.....	.....	12	3
Mercer	1	.....	.....	.....	1	4
Middlesex	12	14	4	.....	30	5
Monmouth	21	4	3	.....	28	9
Ocean	20	16	8	4	48	20
Salem	1	.....	1	1	3	4
Fires that burned in more than 1 county .....	.....	.....	1	2	3	.....
Totals	154	141	54	10	359	141
State Totals	273	211	73	10	567	229
Per cent of State Totals.	34.	27.	9.	1.	71.	29.

CAUSES OF FIRES.

Railroads.—It has been evident for a number of years that the fires set by railroads were decreasing in proportion to the total. This year the proportion so set (35 per cent) is slightly, but only slightly, more than in the last report, in which fires from this cause were at

the lowest figure in proportion to the total for any time since the record is available. In view of the known difficulties of the war period this record is most encouraging. Credit has been given repeatedly to the maintenance-of-way departments of the companies for hearty and effective cooperation in this respect, and emphatic appreciation again is gladly given those responsible. It is regrettable that as complete and efficient cooperation has not been reached with the operating departments to whom the future must look for any radical betterment of the present situation.

Brush burning.—A total of 98 fires are known to have come from the use of fire for "cleaning up." This figure is 12 per cent of the total, which is essentially the same as that in the preceding report. The fact that the only extensive use of fire in this way is during the three spring months and that 523, or 69 per cent of the year's fires from all causes, burned in these months emphasizes the conviction, often before repeated in this connection, that many if not the majority of fires from brush burnings are not now so recorded. Where patrol has been possible and rigid enforcement of the permit law secured in this way, forest fires from this cause are few. Fire can be used safely for brush and rubbish disposal. In many situations it is the only means available and in others it is desirable or most convenient. But permiscuous and unregulated use of fire by the ignorant, indifferent or careless is a public menace for curtailing which provision should be made. Complete and alert patrol of the localities most involved and throughout the special danger periods is the only certain and effective means of rapidly remedying this difficulty.

Smokers.—With each succeeding report increased emphasis has been placed upon the necessity for more adequate means of reaching smokers with caution and correction to prevent the annual waste from fire due to careless use of smoking materials. This year 16 per cent of the State's forest fires are definitely known to have been set by users of tobacco. However, a large part of those recorded as of unknown origin, have unquestionably come from the same source. Such fires cannot be prevented until it is made possible to adequately patrol the woodlands. This will not only, if even primarily, serve to apprehend the individuals responsible for fires which start, but will make possible an insistent and widespread appeal for greater care in this respect to prevent fires from starting.

Miscellaneous.—Fires set by steam machinery, children at play, ill-advised or selfish backfiring, smoking out game and many other

causes are too few in each class in proportion to the total to be separately classified. This year 5 per cent of the total are therefore recorded as of miscellaneous cause, a proportion which varies but little from year to year. Fires from such causes can only be reduced gradually by correction of specific menaces as they develop and by the deliberate processes of general education. Their curtailment can be materially hastened, however, by the patrol so urgently needed for control of other phases of the fire situation.

Campers, picnickers and sportsmen.—The rapid increase in population, the swiftly growing use of the automobile, and the increasing impetus to out-of-doors recreation generally within the State are annually taking more and more people to the open for rest and play. The camp-fire and bon-fire or carelessly discarded matches and lighted tobacco are the almost inevitable accompaniment in each case. Each year it is pointed out that the situation persists and insistent endeavor is made to advertise the need for compliance with the law requiring permits, and for universal care with fire. This endeavor is gradually replacing the wood fire by the more effective and convenient artificial fuels for campers and slowly reaching the smokers with realization of the possibilities of their carelessness. But the field is so wide and the menace so general, yet so sporadic, that the close and continuous contact maintained by a patrol appears to be the only effective control. That such treatment of the situation will effect a remedy is certain from past trial in specific localities and during certain seasons in this State and from a Nation-wide experience in similar situations. In large measure the element to be met is ignorance of the danger involved, not indifference to the result.

Fig. 20. A big fire—too hot for comfort or cooking; dangerous, draft, disagreeable.

Fig. 22. Never build a fire on leaves, duff, mould, etc. It always may, and often will, burn along the surface or underneath unseen and escape later.

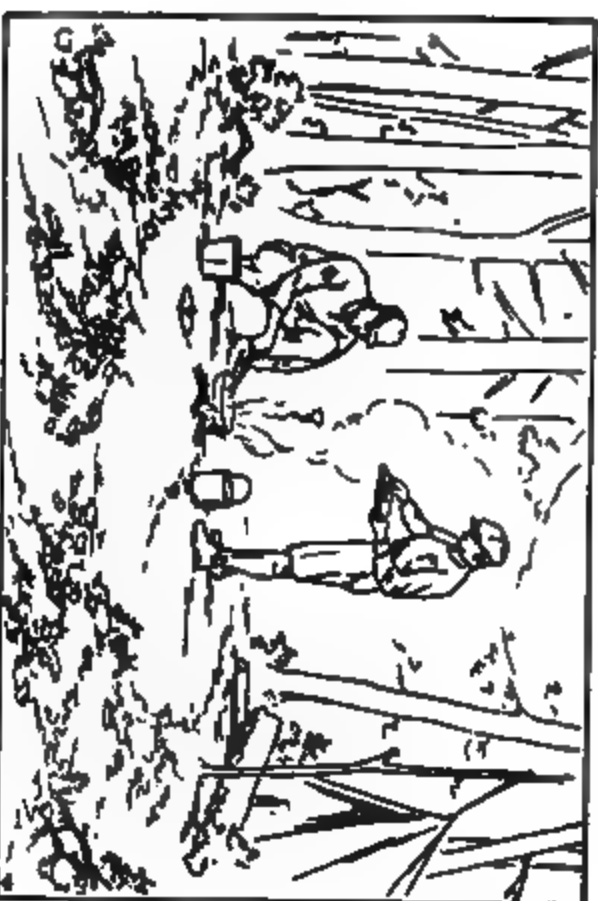


Fig. 23. Always build a fire on a prepared spot of bare mineral soil and cut down and rake back from it all inflammable material.

Fig. 21. A small fire—easy to use and to enjoy; safe, sane, satisfactory.

Camp Fires are authorized by permit and when controlled as here shown, do little harm

TABLE 3—FOREST FIRES BY CAUSES AND COUNTIES, 1918.

COUNTY	NUMBER										Totals	
	Locomotive		Brush Burning		Smokers		Miscellaneous		Unknown			
	FF	eF	FF	eF	FF	eF	FF	eF	FF	eF	FF	eF
North Jersey—												
Bergen	5	6	6	2	5	3	1	2	8	1	25	14
Hunterdon	2	1	.....	1	2	1	.....	1	.....	.....	4	4
Morris	17	8	12	7	18	4	4	1	24	6	75	25
Passaic	15	4	2	2	12	2	.....	.....	2	3	31	11
Somerset	4	1	3	.....	5	.....	1	2	9	3	22	6
Sussex	14	6	2	.....	8	2	.....	2	4	.....	28	10
Union .....	.....	.....	2	.....	1	.....	1	.....	2	.....	6	.....
Warren	5	14	3	1	4	.....	1	.....	4	3	17	18
Fires that burned in more than 1 county .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals	62	40	30	13	55	12	8	8	53	16	208	88
South Jersey—												
Atlantic	33	17	7	4	8	3	3	4	33	9	84	37
Burlington	3	2	3	1	7	1	1	.....	9	4	23	7
Camden	8	13	3	3	3	2	1	.....	10	2	25	20
Cape May	17	10	5	.....	2	1	.....	.....	9	2	33	13
Cumberland ...	8	2	9	1	9	1	4	.....	9	5	69	10
Gloucester	5	.....	2	1	2	.....	1	.....	2	2	12	3
Mercer .....	.....	.....	.....	3	.....	.....	.....	.....	1	1	1	4
Middlesex	2	1	3	1	3	.....	2	.....	20	3	30	5
Monmouth	10	6	2	1	4	1	2	.....	10	1	28	9
Ocean	16	18	2	1	9	3	2	1	19	6	48	29
Salem	1	.....	1	2	.....	1	.....	1	1	.....	3	4
Fires that burned in more than 1 county .....	.....	.....	.....	.....	1	.....	.....	.....	2	.....	3	..
Totals	103	69	37	18	48	13	16	6	155	35	359	141
State Totals..	165	109	67	31	103	25	24	14	207	51	567	229
Per cent of State totals	34.6		12.4		16.1		4.7		32.2		71	29

FF—Forest Fires.
eF—Embryo Fires (less than 2 acres).

THE FOREST FIRE SERVICE.

The State force.—The effectiveness of the State organization as a fire deterrent and fire control agency, both by its direct activities and by its influence reflected through the improved local organization and in the general public interest and support, need not be dwelt upon again. The smallness of the number so employed has been a continual handicap. To partially remedy this condition it has been possible to increase the personnel in the state office by an additional assistant to the State Firewarden.

Intensive patrol has been maintained by the regular force in restricted localities and for limited periods, to supplement the general patrol always made incident to travel on all business. Personal supervision of the fire fighting has been necessary and possible at many fires.

Responsibility for more than 54 per cent of all fires reported has been fixed on the person or agent responsible, largely through the work of the State's wardens.

Especial effort has been made to awaken interest and stimulate care in smokers and brush burners by special posters and leaflets personally distributed. A special publication dealing with the camp-fire problem has been prepared in attractive form and widely distributed and has received very general and favorable attention.

The protective measures undertaken by the Erie R. R. on its Greenwood Lake Division at the instance of the Fire Service and under its supervision have been completed and have already proven their effectiveness in reducing the fires hitherto so numerous along this line.

The unusual and widespread activity in road building, succeeding the war period, has developed a special danger from this source, through the use of coal burning machinery, the necessary brush disposal and the influx of ignorant or careless labor in connection with the work. At the instance of the Fire Service, and through the co-operation of the State Highway Engineer, prompt and apparently effective steps have been taken to prevent serious trouble from this source.

Especially dangerous situations due to unnecessary accumulations of logging slash and similar debris or the operation of steam machinery in the woodlands have been remedied in a number of instances

upon the initiative and under the supervision of the Fire Service. Many others that should be so dealt with are either not known until serious fire trouble has uncovered them or cannot be given the necessary attention because of the short-handedness and poverty of the Fire Service for such patrol.

Local Organization.—The Fire Service has been newly installed in eight municipalities as follows: Alexandria, Clinton, East Amwell, Franklin, Holland and West Amwell in Hunterdon County, Beachwood in Ocean County and Montgomery in Somerset County. Also by the political division of Pompton Township, Passaic County, the service is now represented in the three new boroughs. With the previous organization, there therefore is active fire prevention and control in 157 municipalities with 346 local wardens enlisted in the work. There have been few changes in personnel among this force and this stability is reflected in its growing interest and effectiveness. Despite almost universal difficulty in securing adequate fire fighting crews promptly under war conditions and an increased menace in many ways, the average area burned per fire is lower than for previous years; a testimony to growing general efficiency in fire control. If fires are to be stopped from starting, save by the costly and gradual means of general educational effort, this force must be augmented, though not supplanted by effective fire patrol.

Lookouts.—The lookout station provided through the cooperation of the City of Atlantic City, at McKeetown, Atlantic County, has been manned throughout the season and has proven its value in fire control beyond any question.

The Batsto fire lookout in Burlington County and that at Cedar Pond, Passaic County, have been operated throughout the season.

During the fall of 1918 an additional Lookout Station was erected and equipped on the Stokes State Forest, near Culver's Lake, Sussex County, with State funds supplemented by an allotment of \$250 from Federal funds through the so-called "Weeks Law." Since April, 1919, this Station has been actively at work.

Able-bodied, but still convalescent, overseas casuals from army hospitals have been employed as fire watchers.

By appropriation, the 1919 Legislature provided \$3,000 for the erection and maintenance of new lookout stations, contingent upon the enlistment of private cooperation for the same purpose, to an equal value. Good progress has been made in securing such coopera-

tion and before the end of the calendar year 1919 it is expected that not less than three new towers will be under way if not completed.

Federal cooperation.—Continuing the assistance given in previous years a fund of \$2,000 was available from the Federal Government through the U. S. Forest Service under the "Weeks Law" for 1918 and was renewed for 1919.

From the first of April until early in December, 1918, a patrolman travelling by automobile was on duty throughout the greater portion of North Jersey. From the middle of October till the first of December an additional automobile patrolman was maintained in an area particularly frequented by gunners.

Because of the expectation that the larger part of this fund would be needed for lookout services later in the year, no patrol has been provided from this source since January 1, 1919.

From April until December, 1918, the fire Lookout Station at Cedar Pond was manned by a watcher provided from this fund, and since April, 1919, it has again been similarly maintained. Also the new tower at Culver's Lake has been in operation since early in April through the provision of Federal funds.

The experience of this season, like that of previous years, emphatically evidences the fact that, where patrol is active, fires are fewer, and that, where either adequate patrol or lookouts are available, serious fires do not occur.

Value of the Service.—It is too commonly the practice to note the damage done, the area burned, the number of fires starting and similar records of the year's failures even though the data does denote improvement, and to obscure the immediate and concrete value of the service rendered. It is quite evidently impossible to estimate, in even the most general terms, what damage the most trifling blaze might have done if not put out while small and no such calculation is attempted. It is beyond argument, however, that if forest values and forest industry are to increase or even to continue in the State, fires must be curtailed. It is also unanswerable that every fire and particularly each small fire which is extinguished, thereby adds to the proportion of the State's two million acres of forest which is not set back or totally ruined.

However, if the woodlands of the State had no value, either present or potential, the service rendered in the past year by the control of forest fire is attested by the fact that during 1918 improved property to the value of almost \$1,300,000 has been saved from threatened

Fig. 24. Slash like this left in the woods or piled along the roads tempts fire to start, makes a very hot fire to fight and hinders or prevents effective and prompt control.

Fig. 25. Fire burning in logging slash.

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destruction by forest fire. This feature, though incidental to the building up of New Jersey's forest capital to its possible 200 million dollar status, is of itself a notable effect of still inadequate protection. These fires threatened homes, farm buildings, industrial plants, government war projects, and whole towns; they menaced cranberry bogs and farm and forest products and the list is known to be far from complete.

Needs of the Service.—The effectiveness of the present system of local firewardens in extinguishing fires, after they are discovered and except under abnormal conditions, is amply attested by the records of this and previous years. But their activity and influence is necessarily largely limited to the control of fires already burning and to which attention has been directed by the often tardy, and always uncertain medium of a public interest largely local. The insufficiency of the organization, as at present constituted, to effect a satisfactory and radical improvement in reducing the number of fires started and in insuring necessary promptness in getting to fires in the wilderness sections has repeatedly been pointed out. The imperative need for a State-wide system of fire lookouts and an adequate force for fire patrol is again stated. There must be means provided for the maintenance of a permanent watch to guarantee prompt knowledge of every fire which starts, that it may be controlled before it can gain headway. There must be means of cautioning the well meaning and controlling the indifferent or careless transient or sojourner in the woodlands to prevent the start of fires in increasing numbers by the annually growing swarm of tourists and settlers passing through or occupying the wilderness and rural sections. By the cooperation of the Federal Government and through the generosity of municipal or private interests fire lookouts and patrol have been tried and proven effective for these purposes locally and in a restricted sphere within this State, as they have universally and for large areas throughout the nation. The State cannot and should not rely upon local or private generosity for any general installation of these necessities for adequate forest protection. But without them the needless, unsafe and wasteful increase in numbers of and damage from forest fires cannot be effectively curtailed, save by a campaign of public education through indirect channels with its necessary inherent weakness, cost and tardiness.

TABLE 4—FOREST FIRES BY COUNTIES AND TOWNSHIPS, 1918.

COUNTY AND TOWNSHIP	Number		Acres Burned	Loss to Forests and Other Property	Cost to Extinguish	Paid by†		
	Forest Fires	Embryo Fires				Township	State	Offenders
<i>Atlantic County--</i>								
Absecon (City) . . . . .	.....	.....	.....	.....	.....	.....	.....	.....
Buena Vista	9	1	843	\$305	\$81.85	\$25.40	\$25.40	\$41.80
Egg Harbor	15	2	657	260	231.60	111.80	111.80	10.00
Egg Harbor (City)	4	1	37	15	62.20	15.00	15.00	37.20
Folsom . . . . .	.....	.....	.....	.....	.....	.....	.....	.....
Galloway	23	11	1570	1145	373.50	129.33	129.32	124.85
Hamilton	9	4	3384	4980	220.97	89.55	89.55	51.87
Hammonton	5	4	687	340	172.59	59.04	59.05	54.50
Linwood . . . . .	.....	.....	.....	.....	.....	.....	.....	.....
Mullica	9	2	3746	3758	370.35	12.25	12.25	350.85
Northfield (City) . . . . .	.....	.....	.....	.....	.....	.....	.....	.....
Pleasantville	1	.....	5	.....	.....	.....	.....	.....
Port Republic . . . . .	.....	.....	.....	.....	.....	.....	.....	.....
Weymouth	11	12	1696	735	225.20	105.80	105.80	23.60
Total	86	37	12625	\$11538	\$1738.26	\$548.17	\$548.17	\$694.67
<i>Bergen County—</i>								
Franklin	4	6	41	\$200	\$99.00	\$18.00	\$18.00	\$63.00
Hohokus	5	1	719	713	48.00	24.00	24.00	.....
Montvale (Boro.)	1	.....	50	75	11.00	.....	.....	15.00
Oakland (Boro.)	4	1	149	164	45.50	11.25	11.25	23.00
Pk. Ridge (Boro.)	3	.....	35	20	21.00	4.50	4.50	12.00
Ridgefield (Boro.)	5	6	39	25	20.50	8.75	8.75	3.00
Woodcliffe Lake	3	.....	38	25	16.00	3.50	3.50	9.00
Total	25	14	1071	\$1222	\$261.00	\$70.00	\$70.00	\$125.00
<i>Burlington County—</i>								
Bass River	4	.....	1013	\$560	\$82.25	\$41.13	\$41.12	.....
Evesham	2	.....	13	5	10.25	.....	.....	\$10.25
Medford	2	1	20	10	62.30	31.15	31.15	.....
New Hanover	3	.....	405	2455	27.00	13.50	13.50	.....
Pemberton	8	3	1603	475	182.55	78.78	78.77	25.00
Shamong	1	.....	5	10	6.00	.....	.....	6.00
Southampton	1	.....	30	30	6.80	3.40	3.40	.....
Tabernacle	1	.....	20	20	7.80	3.90	3.90	.....
Washington	2	1	4524	2000	184.05	51.40	132.65	.....
Woodland	2	2	270	45	30.70	15.35	15.35
Total	26	7	7904	\$5610	\$599.70	\$238.61	\$319.84	\$41.25

FIREWARDEN'S REPORT.

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TABLE 4—FOREST FIRES BY COUNTIES AND TOWNSHIPS, 1918—Continued.

COUNTY AND TOWNSHIP	Number		Acres Burned	Loss to Forests and Other Property	Cost to Extinguish	Paid by†		
	Forest Fires	Embryo Fires				Township	State	Offenders
<i>Camden County—</i>								
Berlin	1	.....	3	.....	\$8.00	\$4.00	\$4.00	.....
Chesilhurst (Boro.)	2	1	30	\$25	19.70	9.85	9.85	.....
Clemonton	4	1	65	35	40.00	16.00	16.00	\$8.00
Delaware .....	.....	1	.....	.....	.....	.....	.....	5.00
Gloucester	2	3	10	105	18.40	5.60	5.60	16.70
Voorhees .....	.....	2	.....	.....	17.00	8.50	8.50	.....
Waterford	5	.....	611	2555	103.11	49.37	53.74	6.00
Winslow	11	12	266	730	219.75	30.62	30.63	158.50
Total	25	20	985	\$3450	\$425.96	\$123.94	\$128.32	\$194.20
<i>Cape May County—</i>								
Dennis	3	1	165	\$85	\$64.75	\$11.37	\$11.38	\$45.00
Lower	6	3	60	22	67.85	28.43	28.42	9.00
Middle	14	7	679	712	257.75	29.75	29.75	200.75
Upper	8	2	509	960	107.34	49.17	49.17	9.00
Woodbine (Boro.)	2	.....	35	10	15.80	6.00	6.00	10.00
Total	33	13	1448	\$1789	\$513.49	\$124.72	\$124.72	\$273.75
<i>Cumberland County—</i>								
Commercial	5	.....	837	\$430	\$110.80	\$55.40	\$55.40	.....
Deerfield	6	.....	283	135	29.00	4.75	4.75	60.00
Downe	7	.....	3304	3143	236.90	58.10	58.10	120.70
Fairfield	2	2	25	20	31.00	9.00	9.00	14.00
Landis	12	5	749	630	244.15	116.47	116.43	11.25
Lawrence	4	.....	490	360	105.30	45.65	45.65	14.00
Maurice River ...	10	.....	642	360	88.60	26.50	26.50	61.00
Millville (City) ..	26	3	1065	2632	612.15	262.38	262.37	87.40
Total	72	10	7395	\$7719	\$1457.90	\$578.25	\$578.20	\$368.35
<i>Gloucester County—</i>								
Clayton (Boro.)...	.....	.....	.....	.....	.....	.....	.....	.....
Elk	1	.....	3	.....	\$15.00	\$7.50	\$7.50	.....
Franklin	4	2	124	\$40	17.80	3.40	3.40	\$31.00
Monroe	6	1	205	100	69.00	12.50	12.50	58.00
Washington	1	.....	4	.....	13.00	6.50	6.50	.....
Total	12	3	336	\$140	\$114.80	\$29.90	\$29.90	\$89.00

TABLE 4—FOREST FIRES BY COUNTIES AND TOWNSHIPS, 1918—Continued.

COUNTY AND TOWNSHIP	Number		Acres Burned	Loss to Forests and Other Property	Cost to Extinguish	Paid by†		
	Forest Fires	Embryo Fires				Township	State	Offenders
<i>Hunterdon County—</i>								
Alexandria								
Bethlehem	3	1	305	\$204	\$25.35	\$12.67	\$12.68	
Clinton	1		150	150	103.40	51.70	51.70	
East Amwell								
Franklin								
Holland								
Lebanon		1		3000				
Tewksbury								
West Amwell		2			3.00	1.50	1.50	
Total	4	4	455	\$3354	\$131.75	\$65.87	\$65.88	
<i>Mercer County—</i>								
Hopewell								
Princeton		4	2		\$27.00	\$10.50	\$10.50	\$65.00
Total		4	2		\$27.00	\$10.50	\$10.50	\$65.00
<i>Middlesex County—</i>								
East Brunswick ..	8		284	\$240	\$53.60	\$26.80	\$26.80	\$30.00
Madison	10	3	619	515	207.10	93.55	93.55	40.00
Monroe	3		663	2250	13.00	6.50	6.50	5.00
Sayreville	9	2	163	40	65.95	32.97	32.98	
South Brunswick..	1							
Total	30	5	1729	\$3045	\$339.65	\$159.82	\$159.83	\$75.00
<i>Monmouth County—</i>								
Atlantic								
Freehold	3		1550	\$1600	\$113.65	\$57.82	\$57.83	
Howell	21	5	545	1674	371.87	92.53	92.53	\$190.07
Middletown	1		10	10	8.00	4.00	4.00	
Ocean	3		28	35	15.75	7.88	7.87	
Shrewsbury	1	3	3		27.00	3.00	3.00	21.00
Wall		1						10.00
Total	29	9	2045	\$3319	\$538.27	\$165.23	\$165.23	\$221.07

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TABLE 4—FOREST FIRES BY COUNTIES AND TOWNSHIPS, 1918—Continued.

COUNTY AND TOWNSHIP	Number		Acres Burned	Loss to Forests and Other Property	Cost to Extinguish	Paid by†		
	Forest Fires	Embryo Fires				Township	State	Offenders
<i>Morris County—</i>								
Boonton	6	.....	36	\$21	\$35.00	\$16.00	\$16.00	\$20.00
Chester	3	1	35	11	37.00	11.00	11.00	23.00
Denville	10	2	213	181	142.40	54.60	54.60	33.20
Hanover	7	4	785	1607	142.40	24.20	24.20	101.00
Jefferson	2	2	25	25	74.40	34.70	34.70	5.00
Mendham	2	.....	20	75	16.50	8.25	8.25	.....
Montville	7	.....	99	80	87.00	19.75	19.75	56.00
Morris	4	5	28	29	122.50	27.50	27.50	72.00
Mt. Arlington	3	.....	73	295	68.00	34.00	34.00	.....
Mt. Olive	1	3	5	41	34.00	7.50	7.50	20.00
Passaic .....	.....	.....	.....	.....	.....	.....	.....	.....
Pequannock	4	.....	93	115	50.50	25.25	25.25	.....
Randolph	10	1	199	515	210.90	94.20	94.20	40.50
Rockaway	10	2	810	1145	368.40	116.08	116.09	146.15
Roxbury	4	2	24	60	54.40	15.00	15.00	25.40
Washington	3	3	14	25	45.00	13.00	13.00	19.00
Total	76	25	2459	\$4285	\$1488.40	\$501.03	\$501.02	\$561.25
<i>Ocean County—</i>								
Beachwood (Boro.) .....	.....	.....	.....	.....	.....	.....	.....	.....
Berkeley	3	1	5106	\$2010	\$106.75	.....	.....	\$108.40
Brick	9	3	238	777	153.00	\$64.50	\$64.50	25.00
Dover	3	.....	13	50	23.00	8.00	8.00	7.00
Eagleswood	2	.....	165	95	93.35	46.68	46.67	.....
Jackson	6	2	1488	1330	195.50	75.50	75.50	69.50
Lacey	3	8	2304	1100	136.50	46.10	46.10	44.30
Lakewood	6	1	82	70	58.60	15.20	15.20	28.20
Little Egg Harbor .....	.....	.....	.....	.....	.....	.....	.....	.....
Manchester	12	12	3790	1815	324.55	93.57	93.58	137.40
Ocean	2	.....	510	505	36.48	18.24	18.24	.....
Plumstead	5	.....	32	.....	14.00	7.00	7.00	.....
Stafford	3	.....	5225	5150	370.77	185.39	185.38	.....
Union	4	2	4530	4025	232.29	110.34	110.35	21.60
Total	58	29	23483	\$16927	\$1754.79	\$670.52	\$670.52	\$441.40
<i>Passaic County—</i>								
Pompton	16	7	1075	\$878	\$256.45	\$84.42	\$84.43	\$87.50
*Bloom'gdale (Bor.) .....	.....	.....	.....	.....	.....	.....	.....	.....
*Ringwood (Boro.)	3	1	325	325	51.44	25.72	25.72	.....
*Wanaque (Boro.)..	1	1	50	25	3.25	.....	.....	20.00
West Milford	12	2	28	680	182.27	34.09	34.08	114.10
Total	32	11	1735	\$1908	\$493.41	\$144.23	\$144.23	\$221.60

*These three boroughs supplanted Pompton Township during the year.

TABLE 4—FOREST FIRES BY COUNTIES AND TOWNSHIPS, 1918—Continued.

COUNTY AND TOWNSHIP	Number		Acres Burned	Loss to Forests and Other Property	Cost to Extinguish	Paid by†		
	Forest Fires	Embryo Fires				Township	State	Offenders
<i>Salem County—</i>								
Alloway	1	....	10	\$200	\$11.00	\$5.50	\$5.50	.....
Lower Alloways Creek	1	....	10	10	16.16	.....	.....	\$16.60
Pittsgrove	1	1	125	100	12.00	4.00	4.00	4.00
Quinton	1	2	1200	2500	159.90	8.00	8.00	143.90
Upper Pittsgrove..	....	1	.....	.....	8.00	.....	.....	10.00
Total	4	4	1345	\$2810	\$207.06	\$17.50	\$17.50	\$174.50
<i>Somerset County—</i>								
Bernard	3	4	77	\$109	\$159.00	\$43.25	\$43.25	\$72.50
Bridgewater	4	1	22	37	29.00	14.50	14.50	.....
Hillsborough	1	....	85	50	8.00	4.00	4.00	.....
Montgomery .....	....	....	.....	.....	.....	.....	.....	.....
North Plainfield ..	7	....	589	675	149.00	67.00	67.00	15.00
Warren	4	1	32	31	61.30	29.65	29.65	7.00
Total	23	6	805	\$902	\$406.30	\$158.40	\$158.40	\$94.50
<i>Sussex County—</i>								
Andover .....	....	....	.....	.....	.....	.....	.....	.....
Byram .....	....	4	.....	\$10	\$24.25	\$3.63	\$3.62	\$17.00
Frankford .....	....	....	.....	.....	.....	.....	.....	10.00
Franklin (Boro.)..	....	....	.....	.....	.....	.....	.....	.....
Green .....	....	....	.....	.....	.....	.....	.....	.....
Hampton .....	....	....	.....	.....	.....	.....	.....	.....
Hardyston	11	2	114	125	103.35	19.37	19.38	64.60
Hopatcong .....	....	1	.....	4	.....	.....	.....	4.00
Montague	1	2	6	50	25.45	12.73	12.72	.....
Ogdensburg (Bor.)	3	1	85	160	22.00	.....	.....	22.00
Sandyston	2	....	11	8	14.60	5.30	9.30	.....
Sparta	8	....	203	315	83.50	29.30	29.30	24.90
Stillwater .....	....	....	.....	.....	.....	.....	.....	.....
Vernon	3	....	265	265	97.60	48.80	48.80	.....
Walpack .....	....	....	.....	.....	.....	.....	.....	25.00
Wantage .....	....	....	.....	.....	.....	.....	.....	.....
Total	28	10	684	\$937	\$370.75	\$119.13	\$119.12	\$167.50

TABLE 4—FOREST FIRES BY COUNTIES AND TOWNSHIPS, 1918—Continued.

COUNTY AND TOWNSHIP	Number		Acres Burned	Loss to Forests and Other Property	Cost to Extinguish	Paid by†		
	Forest Fires	Embryo Fires				Township	State	Offenders
<i>Union County—</i>								
Mountainside	4	.....	75	\$95	\$49.40	\$24.70	\$24.70	.....
New Providence ..	2	.....	202	150	26.00	2.00	2.00	\$25.00
Scotch Plains .....	.....	.....	.....	.....	.....	.....	.....	.....
Springfield .....	.....	.....	.....	.....	.....	.....	.....	.....
Total	6	.....	277	\$245	\$75.40	\$26.70	\$26.70	\$25.00
<i>Warren County—</i>								
Allamuchy	1	1	2	.....	\$14.00	\$7.00	\$7.00	.....
Blairstown	2	.....	44	\$75	16.25	8.12	8.13	.....
Franklin .....	.....	.....	.....	.....	.....	.....	.....	.....
Hardwick .....	.....	.....	.....	.....	.....	.....	.....	.....
Harmony .....	.....	.....	.....	.....	.....	.....	.....	.....
Hope	2	.....	408	405	99.20	7.00	7.00	\$85.20
Independence .....	.....	.....	.....	.....	.....	.....	.....	.....
Knowlton	5	12	94	140	122.38	20.10	20.10	82.18
Mansfield .....	.....	.....	.....	.....	.....	.....	.....	.....
Pahaquarry	1	2	25	25	26.60	13.30	13.30	.....
Washington	5	3	25	75	75.90	37.93	37.97	.....
White	2	.....	16	15	9.00	.....	.....	9.00
Total	18	18	614	\$735	\$363.33	\$93.45	\$93.50	\$176.38
State Total .....	*	.....	.....	.....	.....	.....	.....	.....

*This total is greater than the actual number (567) because in 16 cases one fire burned in two or more townships.
†The sum of these columns often differs from the "Cost to Extinguish" item because a fine was larger than the bill, or a bill was withdrawn, etc.

VIOLATIONS OF THE LAW.

(See Table 5.)

Of the 796 fires reported during 1918, responsibility for 432, or 54 per cent, has been fixed upon the individual or agent responsible. This proportion is a marked increase over the figure for any previous year, and represents the untiring effort to establish the origin of New Jersey's fires, in order to deter the ignorant, careless or indifferent by persistently penalizing those who are responsible for fires which do burn. In 59 additional instances technical violations of the fire permit law have been dealt with. Approximately 60 per cent of the total violations for the year are railroad fires and 40 per cent are from other agencies. During the year 352, or 72 per cent, of these cases have been finally disposed of and of the 107 cases remaining unsettled from previous years, but 7 still were uncompleted on January 1, 1919. The penalties collected during the year 1918 amounted to \$2,956.92, of which the railroads paid \$1,856.39 and \$1.100.53 was paid by other agencies.

**JERSEY SOIL STRUGGLES TO PRODUCE LUMBER.
FIRES DEFEAT THE EFFORT.**

**Fig. 26. Big timber completely ruined by fire.
A merchantable crop wasted.**

**Fig. 27. The wreck of an otherwise promising future forest.
Young timber will never recover.**

TABLE V—Violations of the Forest Fire Law, 1918

DATE	COUNTY AND TOWNSHIP	OFFENDER	OFFENSE	SETTLEMENT
November 7, 1917..	Atlantic— Buena Vista	Atlantic City R. R.....	1 fire set by locomotive.....	Paid firewarden's bill, \$2.00.
February 25, 1918.		Atlantic City R. R.....	1 fire set by locomotive.....	Paid firewarden's bill, \$5.00.
March 19		Pennsylvania R. R.....	1 fire set by locomotive.....	Dropped.
April 1		A. S. Walker	Saw mill set forest fire.....	Paid fine, \$7.80.
April 26	Egg Harbor	Jacob Tarboy	Allowed fire set legally to escape	Paid fine, \$25.00.
May 15		Atlantic City R. R.....	1 fire set by locomotive.....	Paid firewarden's bill, \$4.00.
March 11		Wm. Hollins	Responsible for a forest fire...	Released with a warning.
April 30		E. Keucher	Allowed fire legally set to escape	Paid fine, \$10.00.
May 7	Egg Harbor City	Atlantic City R. R.....	1 fire set by locomotive.....	No claim; bill too tardy.
July 29		Pennsylvania R. R.....	1 fire set by locomotive.....	No claim; bill too tardy.
August 8		Pennsylvania R. R.....	1 fire set by locomotive.....	No claim; bill too tardy.
May 2		Pennsylvania R. R.....	1 fire set by locomotive.....	Pending.
August 23		Charles Harris	Set fire without a permit and allowed it to escape.....	Employing corporation paid fine, \$30.20.
January 10	Galloway	Pennsylvania R. R.....	1 fire set by locomotive.....	No claim; no bill.
March 16		Pennsylvania R. R.....	1 fire set by locomotive.....	Paid firewarden's bill, \$7.00.
March 19		Pennsylvania R. R.....	1 fire set by locomotive.....	Paid firewarden's bill, \$6.00.
March 23		Pennsylvania R. R.....	1 fire set by locomotive.....	Paid firewarden's bill, \$7.00.
March 29	Atlantic City R. R.	Pennsylvania R. R.....	1 fire set by locomotive.....	Dropped.
March 29		Pennsylvania R. R.....	1 fire set by locomotive.....	Paid firewarden's bill, \$7.00.
April 2		Atlantic City R. R.....	1 fire set by locomotive.....	Paid firewarden's bill, \$10.00.
April 5		Chas. Guerrert	Set fire without a permit and allowed it to escape.....	Dropped; insufficient evidence.
April 7	Pennsylvania R. R.	Pennsylvania R. R.....	1 fire set by locomotive.....	Pending.
April 26		John Turner	Set fire without a permit.....	Paid fine, \$10.00.
April 27		Pennsylvania R. R.....	1 fire set by locomotive.....	No claim; no bill.
April 28		Pennsylvania R. R.....	1 fire set by locomotive.....	Paid firewarden's bill, \$7.00.
May 2	R. R.	Pennsylvania R. R.....	2 fires set by locomotives...	Pending.
May 3		Pennsylvania R. R.....	1 fire set by locomotive.....	Pending.
May 3		Pennsylvania R. R.....	1 fire set by locomotive.....	Paid firewarden's bill, \$12.00.
May 8		Pennsylvania R. R.....	1 fire set by locomotive.....	Pending.
May 26	Pennsylvania R. R.	Pennsylvania R. R.....	1 fire set by locomotive.....	Pending.
August 19		Pennsylvania R. R.....	1 fire set by locomotive.....	Pending.
August 23		Pennsylvania R. R.....	1 fire set by locomotive.....	Pending.
August 24		Pennsylvania R. R.....	1 fire set by locomotive.....	Pending.

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September 16	Galloway	Atlantic City R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$6.00.
September 15		Atlantic City R. R.	1 fire set by locomotive.	No claim; bill too tardy.
December 10		Pennsylvania R. R.	1 fire set by locomotive.	No claim; no bill.
December 10		N. Y. S. & W. R. R.	1 fire set by locomotive.	Pending.
December 28		Pennsylvania R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$6.00.
December 8, 1917.	Hamilton	J. Vetri	Allowed a brush fire to escape.	Paid fine, \$5.00.
April 27, 1918		Atlantic City R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$41.87.
July 16		Pennsylvania R. R.	1 fire set by locomotive.	No claim; bill too tardy.
July 24		Pennsylvania R. R.	2 fires set by locomotives.	No claims; bills too tardy.
January 12	Hammononton	Angelo De Vecchia	Set fire without a permit.	Paid firewarden's bill, \$2.00.
March 2		George Dickerson	Set fire without a permit.	Paid fine, \$6.00.
March 31		Pennsylvania R. R.	1 fire set by locomotive.	Pending.
April 6		Jno. Hartley	Allowed fire set legally to escape.	Paid fine, \$27.50
April 6		Jno. Lintner	Young son set fire at play.	Dropped; offender mentally irresponsible.
May 13	Mullica	Pennsylvania R. R.	1 fire set by locomotive.	Pending.
November 18, 1917.		Pennsylvania R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$4.00.
March 2, 1918		Pennsylvania R. R.	1 fire set by locomotive.	No claim; no bill presented.
March 2		Pennsylvania R. R.	1 fire set by locomotive.	No claim; bill too tardy.
March 18		Edwin Cook	Set fire without a permit.	Paid fine, \$6.00.
March 24		Pennsylvania R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$3.00.
March 31		Pennsylvania R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$15.90
May 6		Pennsylvania R. R.	1 fire set by locomotive.	Pending.
May 8		Pennsylvania R. R.	Responsible for a forest fire.	Paid bills.
August 23		R. R.	1 fire set by locomotive.	Pending.
March 30	W. ymouth	R. R.	1 fire set by locomotive.	No claim; bill too tardy.
April 6		Atlantic City R. R.	1 fire set by locomotive.	No claim; bill too tardy.
April 13		Jas. Smith	Set fire without a permit.	Dropped; action too tardy.
April 17		Mrs. Adele Williams	Set fire without a permit and allowed it to escape.	Dropped; insufficient evidence.
May 2		Atlantic City R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$5.00.
May 2		Jno. Dougherty	Set fire without a permit.	Paid fine, \$10.00.
May 10		Atlantic City R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$6.00.
July 9		Atlantic City R. R.	1 fire set by locomotive.	No claim; bill too tardy.
July 28		Atlantic City R. R.	3 fires set by locomotives.	No claims; bills too tardy.
December 1		Atlantic City R. R.	1 fire set by locomotive.	Pending.
November 8, 1917.	Franklin	J. H. Blarnett.	Set fire without a permit and allowed it to escape.	Offender was burned to death in the fire.
November 8		N. Y. S. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$7.00.
November 25		N. Y. S. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$6.00.
March 11		N. Y. S. & W. R. R.	1 fire set by locomotive.	Pending.
March 30		N. Y. S. & W. R. R.	1 fire set by locomotive.	Pending.
March 31		N. Y. S. & W. R. R.	1 fire set by locomotive.	Pending.
April 16		N. Y. S. & W. R. R.	1 fire set by locomotive.	Pending.
April 25		N. Y. S. & W. R. R.	2 fires set by locomotives.	Pending.

TABLE V—Violations of the Forest Fire Law, 1918—Continued

DATE	COUNTY AND TOWNSHIP	OFFENDER	OFFENSE	SETTLEMENT
April 27	<i>Bergen—Con.</i> Franklin	N. Y., S. & W. R. R.	1 fire set by locomotive.	Pending.
May 3		N. Y., S. & W. R. R.	1 fire set by locomotive.	No claim; no bill.
August 19		John Ramsey	Set fire without a permit.	Released with a warning.
November 13		Jules Roehrs	Set fire without a permit.	Dropped.
March 30		N. Y., S. & W. R. R.	1 fire set by locomotive.	Pending.
April 1		N. Y., S. & W. R. R.	1 fire set by locomotive.	Pending.
November 8		N. Y., S. & W. R. R.	1 fire set by locomotive.	Pending.
March 20		Mrs. W. H. Lockington.	Set fire without a permit and allowed it to escape.	Paid fine, \$3.00.
March 28		N. Y., S. & W. R. R.	1 fire set by locomotive.	Pending.
April 5		Thomas Smith	Set fire without a permit.	Dropped.
April 5	Montvale	F. Koperscyc	Set fire without a permit.	Offender in military service.
November 7, 1917.		Erie Railroad	1 fire set by locomotive.	No claim; no bill.
November 8		Erie Railroad	1 fire set by locomotive.	No claim; no bill.
March 30, 1918.		Mrs. A. M. Morris.	Set fire without a permit and allowed it to escape.	Paid fine, \$5.00.
March 17	Park Ridge	C. W. Kay.	Set fire without a permit and allowed it to escape.	Paid fine, \$2.00.
March 19	Woodcliff Lake.	R. Heuer.	Set fire without a permit and allowed it to escape.	Paid fine, \$4.00.
March 23 .....	.....	E. Groclaude	Set fire without a permit and allowed it to escape.	Paid fine, \$5.00.
April 5 .....	.....	J. B. Menville.	Allowed a fire set under a permit to escape.	Dropped; insufficient evidence.
March 27	<i>Burlington—</i> Evesham	Frank Trains	Set fire without a permit and allowed it to escape.	Released with a warning.
April 6		Peter Schaffer	Set fire under a permit and allowed it to escape.	Paid fine, \$10.25.
May 5	Pemberton	Pennsylvania R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$20.00.
May 15		Pennsylvania R. R.	1 fire set by locomotive.	No claim; no bill.
July 16		Pennsylvania R. R.	1 fire set by locomotive.	Pending.
July 17		Pennsylvania R. R.	1 fire set by locomotive.	No claim; no bill.
March 30	Shamong	Samuel Gager	Set fire without a permit to burn charcoal	Released; justifiable misunderstanding of the law.
May 13	N. J. C. R. R.	1 fire set by locomotive.	Pending.

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November 22	Woodland	J. Frank MacCumber, Supt. State Colony for Feeble-Minded Males.	Set fire without a permit....	Released with a warning.
April 3	Camden—	F. Chavanne	Set fire without a permit....	Paid fine, \$3.00.
June 25	Berlin	Atlantic City R. R.	1 fire set by locomotive....	Pending.
March 17	Clementon	R. C. Hamblen	Set fire without a permit and allowed it to escape....	Paid fine, \$5.00.
April 6	Delaware	Samuel Wilson	Set fire without a permit and allowed it to escape....	Paid fine, \$6.70.
April 14	Gloucester	Atlantic City R. R.	1 fire set by locomotive....	No claim; bill too tardy.
April 17		Ludwick Grabowski	Set fire without a permit....	Paid fine, \$10.00.
April 3	Waterford	Wm. Gulliger	Set fire without a permit....	Paid fine, \$3.00.
April 3		F. F. Dittess	Set fire without a permit....	Paid fine, \$3.00.
May 9		Basile Blanco	Set fire without a permit and allowed it to escape....	Pending.
November 10, 1917.	Winslow	Atlantic City R. R.	1 fire set by locomotive....	Paid firewarden's bill, \$4.00.
February 27, 1918.		Atlantic City R. R.	1 fire set by locomotive....	Paid firewarden's bill, \$7.00.
February 28		Atlantic City R. R.	1 fire set by locomotive....	Paid firewarden's bill, \$12.00.
March 4		Atlantic City R. R.	1 fire set by locomotive....	Paid firewarden's bill, \$3.00.
March 9		Atlantic City R. R.	1 fire set by locomotive....	Paid firewarden's bill, \$7.00.
March 28		Atlantic City R. R.	1 fire set by locomotive....	Paid firewarden's bill, \$3.00.
April 22		Atlantic City R. R.	1 fire set by locomotive....	Paid firewarden's bill, \$3.25.
April 24		Atlantic City R. R.	1 fire set by locomotive....	Paid firewarden's bill, \$19.00.
April 26		Wm. Green	Set fire without a permit and allowed it to escape....	Offender fled jurisdiction.
April 27		Atlantic City R. R.	1 fire set by locomotive....	Paid firewarden's bill, \$4.00.
May 4		Atlantic City R. R.	1 fire set by locomotive....	Paid firewarden's bill, \$12.00.
May 8		Hydraulic Press Brick Co.	Forest fire set by locomotive..	Dropped; insufficient evidence.
May 18		Atlantic City R. R.	1 fire set by locomotive....	Paid firewarden's bill, \$11.00.
July 27		Atlantic City R. R.	3 fires set by locomotives....	Paid firewarden's bill, \$21.00.
August 16		Atlantic City R. R.	1 fire set by locomotive....	Paid firewarden's bill, \$6.25.
August 18		Atlantic City R. R.	1 fire set by locomotive....	Paid firewarden's bill, \$8.00.
September 25		Atlantic City R. R.	1 fire set by locomotive....	Paid firewarden's bill, \$3.00.
December 6		Atlantic City R. R.	1 fire set by locomotive....	Pending.
March 18	Cape May—	Mrs. Emma Collins	Set fire without a permit and allowed it to escape....	Paid fine, \$10.00.
April 23	Dennis	Pennsylvania R. R.	1 fire set by locomotive....	Pending.
July 11		Pennsylvania R. R.	1 fire set by locomotive....	Pending.
December 25, 1917.	Lower	Atlantic City R. R.	1 fire set by locomotive....	Paid firewarden's bill, \$3.00.
March 3, 1918		Atlantic City R. R.	2 fires set by locomotives....	Paid firewarden's bills, \$9.00.
August 8		Pennsylvania R. R.	1 fire set by locomotive....	Pending.
November 15, 1917.	Middle	Atlantic City R. R.	1 fire set by locomotive....	Paid firewarden's bill, \$6.25.
February 27, 1918.		Pennsylvania R. R.	1 fire set by locomotive....	Paid firewarden's bill, \$16.00.

TABLE V—Violations of the Forest Fire Law, 1918—Continued

DATE	COUNTY AND TOWNSHIP	OFFENDER	OFFENSE	SETTLEMENT
March 4	Cape May—Con. Middle	D. L. Spooner	Set fire without a permit.	Paid fine, \$1.00.
March 11		Atlantic City R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$9.00.
March 17		Atlantic City R. R.	1 fire set by locomotive.	No claim; insufficient evidence.
March 18		Mrs. E. S. Starr	Set fire without a permit and allowed it to escape.	Paid fine, \$10.00.
March 19		Rosco Spaulding	Set fire under a permit and allowed it to escape.	Paid fine, \$10.00.
March 31		Atlantic City R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$7.00.
May 12		Atlantic City R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$5.00.
July 14		Pennsylvania R. R.	1 fire set by locomotive.	Pending.
July 27		Atlantic City R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$9.30.
August 16		Atlantic City R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$12.70.
August 18		Pennsylvania R. R.	1 fire set by locomotive.	Pending.
August 19		Atlantic City R. R.	1 fire set by locomotive.	No claim; bill too tardy.
August 21		Pennsylvania R. R.	1 fire set by locomotive.	Pending.
August 31		Pennsylvania R. R.	1 fire set by locomotive.	Pending.
November 16		Atlantic City R. R.	2 fires set by locomotives.	Pending.
December 5		Pennsylvania R. R.	1 fire set by locomotive.	Pending.
December 5	Upper	Atlantic City R. R.	1 fire set by locomotive.	Pending.
March 30		Atlantic City R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$5.00.
March 31		Atlantic City R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$4.00.
April 2		Pennsylvania R. R.	1 fire set by locomotive.	No claim; bill too tardy.
April 7		Samuel Borden	Set fire without a permit and allowed it to escape.	Dropped; evidence too circumstantial.
July 21		Atlantic City R. R.	1 fire set by locomotive.	No claim; bill too tardy.
July 27	Cumberland— Commercial	Atlantic City R. R.	1 fire set by locomotive.	No claim; bill too tardy.
July 29		Atlantic City R. R.	1 fire set by locomotive.	No claim; bill too tardy.
April 5		Stephen Demus	Set fire without a permit and allowed it to escape.	Dropped; insufficient evidence.
December 7, 1917.		Fred Herder	Set fire without a permit.	Paid fine, \$5.00.
April 4, 1918.	Deerfield	J. Yankelabity	Set fire without a permit.	Paid fine, \$5.00.
April 15		Jos. Fischler	Responsible for a forest fire.	Paid fine, \$10.00.
April 24		O. Somers	Set fire without a permit and allowed it to escape.	Paid fine, \$10.00.

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April 26	Deerfield	H. H. Gotlieb	Responsible for a fire set without a permit by his son	Dropped; child a minor.
May 2		N. T. Lanning	Set fire without a permit and allowed it to escape	Paid fine, \$1.25.
May 2		Frank Dempsy	Set fire without a permit and allowed it to escape	Paid fine, \$10.00.
May 6	Downe	New Jersey Central R. R.	1 fire set by locomotive	Pending.
May 9		New Jersey Central R. R.	1 fire set by locomotive	Pending.
March 6	Fairfield	New Jersey Central R. R.	1 fire set by locomotive	Pending.
April 6		Geo. Cuff	Set fire without a permit	Paid fine, \$5.00.
April 5	Landis	Pennsylvania R. R.	1 fire set by locomotive	Paid firewarden's bill, \$3.50.
April 25		Pennsylvania R. R.	1 fire set by locomotive	Pending.
May 3		Pennsylvania R. R.	1 fire set by locomotive	Pending.
May 9		Vineland Training School	Inmate set fire without a permit	Released with a warning.
March 29	Maurice River	Mrs. N. Salmon	Set fire without a permit and allowed it to escape	Paid fine, \$15.00.
April 15		Pennsylvania R. R.	1 fire set by locomotive	Paid firewarden's bill, \$6.00.
April 26		Mrs. Cassie Lupperger	Set fire without a permit	Pending.
April 26		M. Carl	Set an illegal backfire, thereby caused a forest fire	Paid fine, \$10.00.
April 27		Charles Morse	Set an illegal backfire, thereby caused a forest fire	Paid fine, \$10.00.
April 27		Jno. Lupperger	Set an illegal backfire, thereby caused a forest fire	Pending.
April 29		C. C. Compton	Responsible for a forest fire	Released with a warning.
May 1		Steve & Mike Pernock	Set fire without a permit	Released with a warning.
April 23	Millville	Pennsylvania R. R.	1 fire set by locomotive	No claim; insufficient evidence.
April 26		Pennsylvania R. R.	1 fire set by locomotive	No claim; insufficient evidence.
April 26		Pennsylvania R. R.	1 fire set by locomotive	Pending.
July 22		Menantico Sand and Gravel Co.	Responsible for a forest fire	Pending.
February 26	Gloucester— Franklin	David Link	Responsible for a forest fire caused by careless smoking.	Paid fine, \$3.00.
March 3		S. Domokos	Set fire without a permit and allowed it to escape	Paid fine, \$10.00.
March 5		Michale Tirelli	Set fire without a permit and allowed it to escape	Paid fine, \$10.00.
December 5, 1917.	Monroe	Jno. Polan	Set fire without a permit	Paid fine, \$10.00.
March 23, 1918.		Jos. Slobodzin	Responsible for a forest fire	Paid fine, \$10.00.
July 26		New Jersey Central R. R.	1 fire set by locomotive	Pending.
August 8		Atlantic City R. R.	1 fire set by locomotive	Paid firewarden's bill, \$4.00.
August 21		Rolla White	Set fire while at play	Dropped; out of jurisdiction.

TABLE V—Violations of the Forest Fire Law, 1918—Continued

DATE	COUNTY AND TOWNSHIP	OFFENDER	OFFENSE	SETTLEMENT
March 25	<i>Hunterdon</i> — Bethlehem	New Jersey Central R. R.	1 fire set by locomotive.....	No claim; no bill.
April 1		Lehigh Valley R. R.	2 fires set by locomotives....	No claim; bill too tardy.
March 19	<i>Mercer</i> — Princeton.....	Fred Highman	Set fire without a permit and allowed it to escape.....	Pending.
March 24		Louis Corti	Set fire without a permit and allowed it to escape.....	Paid fine, \$10.00.
April 11		Henry Dohrn	Set fire without a permit and allowed it to escape.....	Pending.
March 28				
April 6	<i>Middlesex</i> — East Brunswick....	A. Kuehn	Responsible for a forest fire..	Paid fine, \$10.00.
April 17		Jacob Dalenback	Responsible for a small forest fire	Dropped; insufficient evidence.
May	<i>Madison</i>	W. Lebrlitzky	Set fire without a permit.....	Paid fine, \$10.00.
November 1, 1917,		Andrew Straczek	Set fire without a permit.....	Released with a warning.
April 15		Abraham Rosenthal	Set fire without a permit.....	Paid fine, \$5.00.
April 18		N. Y. S. & W. R. R.	1 fire set by locomotive.....	No claim; no bill.
May 8		Edw. Boyce.....	Set fire without a permit.....	Released with a warning.
May 18, 1918.....		N. Y. Telephone Co.	Allowed a fire set under a per- mit to escape	Dropped; insufficient evidence.
October 29		Alex Casper	Responsible for a forest fire..	Paid fine, \$5.00.
October 29		Richard Burlen	Set fire without a permit.....	Paid fine, \$10.00.
November 30		Mrs. Chas. Hillyer.....	Set fire without a permit.....	Paid fine, \$5.00.
September 30		Dubois Rue	Set fire without a permit.....	Dropped.
November 19	<i>Monroe</i>	H. G. Marcelli.....	Set fire without a permit.....	Paid fine, \$5.00.
March 23		Pennsylvania R. R.	1 fire set by locomotive.....	No claim; bill too tardy.
March 30	<i>Sayreville</i>	Pennsylvania R. R.	1 fire set by locomotive.....	No claim; bill too tardy.
April 19		Pennsylvania R. R.	1 fire set by locomotive.....	No claim; bill too tardy.
October 17		Pennsylvania R. R.	1 fire set by locomotive.....	No claim; bill too tardy.
November 6, 1917.	<i>South Brunswick</i> ..	W. I. Petty.....	Set fire without a permit.....	Released with a warning.
December 3				
December 7				
January 9, 1918..				
November 6, 1917.	<i>Monmouth</i> — Howell	Pennsylvania R. R.	1 fire set by locomotive.....	Paid firewarden's bill, \$5.35.
December 3		New Jersey Central R. R.	1 fire set by locomotive.....	Paid firewarden's bill, \$5.00.
December 7		New Jersey Central R. R.	1 fire set by locomotive.....	Paid firewarden's bill, \$4.00.
January 9, 1918..		New Jersey Central R. R.	1 fire set by locomotive.....	Paid firewarden's bill, \$4.00.

February 18	Howell	New Jersey Central R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$3.00.
March 18		New Jersey Central R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$8.00.
March 19		New Jersey Central R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$37.55.
March 24		New Jersey Central R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$16.00.
March 26		New Jersey Central R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$5.00.
March 27		New Jersey Central R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$10.00.
March 29		Briton Cook	Set fire without a permit and allowed it to escape.	Paid fine, \$10.00.
March 29		New Jersey Central R. R.	1 fire set by locomotive.	Pending.
March 30		Bennett Gravel Co.	Forest fire set by locomotive.	Paid fine, \$13.75.
April 5		Bennett Gravel Co.	Responsible for a forest fire.	Paid fine, \$5.50.
April 26		New Jersey Central R. R.	2 fires set by locomotives.	Pending.
April 27		Pennsylvania R. R.	1 fire set by locomotive.	Pending.
April 27		New Jersey Central R. R.	1 fire set by locomotive.	Pending.
April 28		Pennsylvania R. R.	1 fire set by locomotive.	Pending.
December 1		New Jersey Central R. R.	1 fire set by locomotive.	Pending.
April 27	Middletown	Frank Brasch	Set fire without a permit.	Pending.
November 7	Sarewsbury	New Jersey Central R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$1.50.
March 3		New Jersey Central R. R.	1 fire set by locomotive.	Paid firewarden's bills, \$18.50.
March 19		Mrs. O. A. Porter	Set fire without a permit and allowed it to escape.	Paid fine, \$2.50.
April 6	Wall	J. N. Newman	Set fire without a permit.	Paid fine, \$5.00.
April 6		J. H. Wooley	Set fire without a permit.	Released with a warning.
April 6		Jacob Thompson	Set fire without a permit.	Paid firewarden's bill, \$5.00.
November 10, 1917.	Boonton	Geo. Flichtner	Set fire by careless smoking.	Paid firewarden's bill, \$27.80.
April 26, 1918.		J. H. Depoe	Allowed a fire legally set under a permit to escape.	Paid fine, \$10.00.
May 1		Pietro Sinibaldi	Set fire without a permit and allowed it to escape.	Dropped; insufficient evidence.
June 17		Clarence de Camp	Set fire without a permit.	Released without fine.
June 17		Clarence de Camp	Set fire without a permit.	Paid fine, \$10.00.
June 17		Pietro Sinibaldi	Set fire without a permit.	Dropped; insufficient evidence.
November 19, 1917.	Chester	D. L. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$9.75.
November 25		D. L. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$13.00.
April 27		Stephen Hoffman	Responsible for a forest fire.	Paid fine, \$10.00.
August 7		Richard Stevens	Set fire without a permit.	Released with a warning.
March 23	Denville	D. L. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$18.00.
March 25		D. L. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$4.50.
March 29		J. H. Fordyce	Set fire without a permit.	Released with a warning.
March 30		Peter Reuss	Responsible for a forest fire.	Dropped; insufficient evidence.
May 16		Oscar Kratz	Responsible for a small forest fire.	Released with a warning.
November 11		D. L. & W. R. R.	1 fire set by locomotive.	Pending.
December 5		D. L. & W. R. R.	1 fire set by locomotive.	Pending.
November 7, 1917.	Hanover	D. L. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$6.00.
November 15		D. L. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$21.30.

TABLE V—Violations of the Forest Fire Law, 1918—Continued

DATE	COUNTY AND TOWNSHIP	OFFENDER	OFFENSE	SETTLEMENT
November 16	Morris—Con. Hanover	D., L. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$6.00.
March 25, 1918.		Geo. Chambers	Responsible for a forest fire.	Pending.
March 26		D., L. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$27.00.
March 30		M. & E. R. R.	2 fires set by locomotives.	Pending.
April 2		Chas. Boulton	Set fire without a permit.	Paid fine, \$5.00.
April 2		J. G. Bell.	Set fire without a permit.	Released with a warning.
June 24		Mt. Lakes Co., Inc.	Responsible for a fire set without a permit.	Released with a warning.
July 9		Miss M. L. Fetter.	Set fire without a permit.	Released with a warning.
July 9		Wm. Tyler	Set fire without a permit.	Released with a warning.
September 5		Morris Co. Traction Co.	Set fire without a permit.	Released without action.
September 6	Jefferson	J. H. Mollen.	Set fire without a permit.	Paid fine, \$10.00.
October 2		D., L. & W. R. R.	1 fire set by locomotive.	Pending.
October 30		Rumild Semerick	Set fire without a permit.	Released with a warning.
November 6		Robert Miller	Set fire without a permit.	Released with a warning.
November 8, 1917.		Eliz. Chamberlain	Set fire without a permit and allowed it to escape.	Paid fine, \$5.00.
November 10		F. S. Winterbottom.	Set fire without a permit and left it unwatched.	Paid fine, \$10.00.
November 12		N. Y. S. & W. R. R.	2 fires set by locomotives.	No claims; bills too tardy.
March 30		Jos. Hough	Set fire without a permit.	Paid fine, \$5.00.
March 20		Mrs. D. M. Lawler.	Responsible for a small forest fire caused by live ashes.	Paid fine, \$10.00.
April 2		T. E. Gurtmer.	Set fire without a permit and allowed it to escape.	Paid fine, \$10.00.
February 26	Montville	D., L. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$6.00.
April 1		D., L. & W. R. R.	2 fires set by locomotives.	Paid firewarden's bills, \$35.00.
April 15	Morris	J. H. Milledge.	Set fire without a permit.	Paid fine, \$15.00.
April 2		A. H. Pierson.	Responsible for a forest fire.	Paid fine, \$5.00.
March 30		D., L. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$15.00.
April 6		Chester Underhill	Responsible for a fire set without a permit by his sons	Released with a warning.
April 28, 1918.		John A. Blair.	Set fire without a permit and allowed it to escape.	Pending.

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March 23	Pequannock	N. Y., S. & W. R. R.	1 fire set by locomotive.....	No claim; bill too tardy.
May 9		N. Y., S. & W. R. R.	1 fire set by locomotive.....	No claim; insufficient evidence.
November 7		W. & N. R. R.	1 fire set by locomotive.....	Paid firewarden's bill, \$86.00.
March 24	Randolph	Ed. Lowry	Set fire without a permit and allowed it to escape.....	Paid fine, \$15.50.
March 30		Walter Pitkin	Set fire without a permit and allowed it to escape.....	Paid fine, \$15.00.
April 2		Geo. Baird	Set fire without a permit and allowed it to escape.....	Paid fine, \$10.00.
April 28		A. C. Rousell.....	Set fire without a permit and allowed it to escape.....	Pending.
November 6	Rockaway	Mt. Hope R. R.	1 fire set by locomotive.....	No claim; no bill.
November 27		Ray Peterson	Set fire without a permit.....	Paid fine, \$2.00.
March 22		Wharton & Northern R. R.	1 fire set by locomotive.....	Paid firewarden's bill, \$10.00.
March 29		Edw. Weaver	Set fire without a permit.....	Dropped; insufficient evidence.
March 31		Wharton & Northern R. R.	1 fire set by locomotive.....	No claim; no bill.
April 1		Chas. Allison	Set fire without a permit and allowed it to escape.....	Paid firewarden's bills, \$92.15.
April 26		Wharton & Northern R. R.	1 fire set by locomotive.....	Paid firewarden's bills, \$8.00.
April 28		J. K. Hollingshead.....	Responsible for a forest fire..	Paid fine, \$25.00.
June 8		W. L. Armstrong.....	Set fire without a permit.....	Released with a warning.
July 24		Columbus Smith	Set fire without a permit.....	Paid fine, \$10.00.
September 12		N. Y., S. & W. R. R.	1 fire set by locomotive.....	Pending.
March 29	Roxbury	Robert Roane	Allowed a fire legally set under a permit to escape.....	Paid fine, \$5.00.
April 6		Dover Advertising Co..	Employee set fire without a permit	Paid firewarden's bill, \$2.00.
August 10		G. W. Barry.....	Set fire without a permit.....	Released from responsibility.
October 27		D., L. & W. R. R.	1 fire set by locomotive.....	Pending.
December 4		New Jersey Central R. R.	1 fire set by locomotive.....	Pending.
August 28	Washington	New Jersey Central R. R.	1 fire set by locomotive.....	Pending.
August 30		New Jersey Central R. R.	1 fire set by locomotive.....	Pending.
November 12		New Jersey Central R. R.	1 fire set by locomotive.....	Dropped; insufficient evidence.
March 5, 1918....	Ocean—	Pennsylvania R. R.	1 fire set by locomotive.....	Paid firewarden's bill, \$6.00.
April 15	Berkeley	Mrs. E. V. Runyon.....	Responsible for a forest fire..	Paid firewarden's bill, \$38.35.
April 26		Pennsylvania R. R.	1 fire set by locomotive.....	Pending.
April 20	Brick	Winfield Grant	Responsible for a forest fire set by his child.....	Paid fine, \$5.00.
April 16	Dover	New Jersey Central R. R.	1 fire set by locomotive.....	Pending.
November 14, 1917,	Eagleswood	Mark Zoole	Set fire without a permit and allowed it to escape.....	Paid firewarden's bill, \$6.00.
April 8, 1918....	Jackson	Frank Applegate	Set fire without a permit and allowed it to escape.....	Paid fine, \$25.00.

TABLE V—Violations of the Forest Fire Law, 1918—Continued

DATE	COUNTY AND TOWNSHIP	OFFENDER	OFFENSE	SETTLEMENT
April 26	Green—Cen. Jackson	New Jersey Central R. R.	1 fire set by locomotive.	Pending.
May 15		Chester Leaming	Responsible for a forest fire.	Pending.
June 19	Lacey	Wm. Guening	Set fire without a permit.	Pending.
June 9		New Jersey Central R. R.	1 fire set by locomotive.	Pending.
June 16		New Jersey Central R. R.	1 fire set by locomotive.	Pending.
July 26		New Jersey Central R. R.	1 fire set by locomotive.	Pending.
September 15	Lakewood	New Jersey Central R. R.	1 fire set by locomotive.	No claim; bill too tardy.
September 22		New Jersey Central R. R.	1 fire set by locomotive.	No claim; bill too tardy.
May 18		New Jersey Central R. R.	1 fire set by locomotive.	Pending.
May 26		New Jersey Central R. R.	1 fire set by locomotive.	No claim; no bill.
June 4		New Jersey Central R. R.	1 fire set by locomotive.	Pending.
November 14, 1917.		New Jersey Central R. R.	1 fire set by locomotive.	No claim; no bill.
February 15, 1918.		New Jersey Central R. R.	1 fire set by locomotive.	Pending.
February 21		New Jersey Central R. R.	1 fire set by locomotive.	No claim; no bill.
March 2		New Jersey Central R. R.	1 fire set by locomotive.	No claim; no bill.
March 3		New Jersey Central R. R.	1 fire set by locomotive.	No claim; no bill.
March 15	Unlon	New Jersey Central R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$4.00.
April 15		New Jersey Central R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$1.00.
April 16		Pennsylvania R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$5.00.
April 26		New Jersey Central R. R.	1 fire set by locomotive.	Pending.
May 6		Tuckerton R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$161.00.
May 9		New Jersey Central R. R.	1 fire set by locomotive.	Pending.
May 12		New Jersey Central R. R.	2 fires set by locomotives.	Pending.
May 18		Tuckerton R. R.	1 fire set by locomotive.	No claim; bill too tardy.
May 23		New Jersey Central R. R.	1 fire set by locomotive.	No claim; no bill.
July 23		New Jersey Central R. R.	1 fire set by locomotive.	Pending.
October 19	Unlon	New Jersey Central R. R.	2 fires set by locomotives.	No claim; no bill.
December 6		New Jersey Central R. R.	1 fire set by locomotive.	No claim; no bill.
December 8		New Jersey Central R. R.	1 fire set by locomotive.	No claim; no bill.
December 8		New Jersey Central R. R.	1 fire set by locomotive.	No claim; no bill.
May 9		Gaspar Mollner	Set fire without a permit.	Paid fine, \$10.00.
August 2	Passaic— Bloomingtondale	Sydney Ross	Set fire without a permit.	Pending.
November 3, 1917.		Erle Railroad	2 fires set by locomotives.	No claims; bills too tardy.
November 3		Frank Duffard	Set fire without a permit.	Paid fine, \$5.00.
November 7		Erle Railroad	1 fire set by locomotive.	Paid firewarden's bill, \$2.00.
November 8		Erle Railroad	2 fires set by locomotives.	Paid firewarden's bills, \$13.65.
November 13		S. H. Welling, M. M. Post	Set an illegal backfire.	Released with a warning.

November 15	Pompton	N. Y., S. & W. R. R.	1 fire set by locomotive.	No claim; no bill.
March 17		Erie Railroad	2 fires set by locomotives.	Paid firewarden's bill, \$19.00.
March 19		Erie Railroad	1 fire set by locomotive.	Paid firewarden's bill, \$15.00.
March 21		Erie Railroad	1 fire set by locomotive.	Pending.
March 24		Erie Railroad	1 fire set by locomotive.	Paid firewarden's bill, \$7.00.
March 26		Erie Railroad	1 fire set by locomotive.	Paid firewarden's bill, \$6.00.
March 30		Erie Railroad	1 fire set by locomotive.	Warning.
March 30		New York Transit Co.	Set fire without a permit.	bill, \$7.00.
April 2		Erie Railroad	1 fire set by locomotive.	bill, \$18.50.
April 6		Erie Railroad	1 fire set by locomotive.	Pending.
April 6		Erie Railroad	1 fire set by locomotive.	No claim; bill too tardy.
May 6, 1918	Wannaque	Chas. Jones	1 fire set by locomotive.	Pending.
November 26		Wm. Miller	Responsible for a forest fire.	Pending.
November 14, 1917	West Milford	Erie Railroad	Set fire without a permit.	Paid firewarden's bill, \$2.00.
November 25		Willis Turbee	Set fire without a permit.	Pending.
March 8, 1918		Erie Railroad	1 fire set by locomotive.	Pending.
March 17		N. Y., S. & W. R. R.	1 fire set by locomotive.	Pending.
March 29		Erie Railroad	1 fire set by locomotive.	Pending.
March 31		N. Y., S. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$20.00.
April 5		Erie Railroad	1 fire set by locomotive.	Paid firewarden's bill, \$14.50.
April 15		Erie Railroad	1 fire set by locomotive.	Paid firewarden's bill, \$7.00.
July 26		Miles McDonald	Set fire without a permit.	Pending.
October 23		N. Y., S. & W. R. R.	1 fire set by locomotive.	No claim; insufficient evidence.
May 7	Lower Alloway Creek	Winfield Scudder	Responsible for a forest fire.	Pending.
February 4	Pittsgrove	Robert Mead	Set fire without a permit.	Paid fine, \$5.00.
May 3		Robert Cooper	Children at play set fire.	Pending.
April 19	Upper Pittsgrove	Emil Elfert	Set fire without a permit.	Paid fine, \$10.00.
March 26	Somerset—Bernard	D., L. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$15.00.
March 27		D., L. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$10.00.
March 28		D., L. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$8.00.
April 2		D., L. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$38.50.
April 15		D., L. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$8.00.
March 28	Bridgewater	James Van Noys	Responsible for a forest fire.	Pending.
April 6	North Plainfield	Casero	Set fire without a permit.	Dropped; insufficient evidence.
April 26		Mrs. M. Groszman	Responsible for a forest fire.	Paid fine, \$15.00.
September 5		Mrs. Geo. Mobus	Set fire without a permit.	Released with a warning.
March 30	Warren	N. Grosch	Set fire without a permit and allowed it to escape.	Paid fine, \$2.00.
September 5		John Miller	Set fire without a permit.	Paid fine, \$5.00.

TABLE V—Violations of the Forest Fire Law, 1918—Continued

DATE	COUNTY AND TOWNSHIP	OFFENDER	OFFENSE	SETTLEMENT
November 4	SARASOTA— Byram Frankford Hardyston	D., L. & W. R. R.	1 fire set by locomotive.	Pending.
November 14		L. & H. R. R.	1 fire set by locomotive.	Pending.
November 15		D., L. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$7.00.
November 27		D., L. & W. R. R.	1 fire set by locomotive.	Pending.
October 29, 1919.		Gaston Clifford	Set fire without a permit.	Pending.
March 19		N. Y., S. & W. R. R.	1 fire set by locomotive.	Pending.
March 23		N. Y., S. & W. R. R.	1 fire set by locomotive.	Pending.
March 30		N. Y., S. & W. R. R.	1 fire set by locomotive.	Pending.
April 6		N. Y., S. & W. R. R.	1 fire set by locomotive.	Pending.
April 6		N. Y., S. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$9.50.
May 26		Chas. Tanchick	Set fire without a permit.	Dropped; offender escaped jurisdiction.
October 14	Hopatcong	N. Y., S. & W. R. R.	1 fire set by locomotive.	Pending.
November 26		N. Y., S. & W. R. R.	1 fire set by locomotive.	Pending.
May 5		Benj. Davis	Responsible for a small forest fire	Paid fine, \$4.00.
May 7		Wm. Robinson	Set fire without a permit.	Pending.
November 10, 1917.		N. Y., S. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$2.00.
November 15		N. Y., S. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$2.00.
October 16, 1918.		H. K. Corbin	Set fire without a permit.	Released with a warning.
November 14, 1917.		N. J. Zinc Co.	Employees refused to fight fire,	Released with a warning.
April 6, 1918.		N. Y., S. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$8.30.
July 28		Tipton Earl	Set fire without a permit.	Released with a warning.
August 28	Wallpack	New Jersey Central R. R.	1 fire set by locomotive.	Pending.
October 19		New Jersey Central R. R.	1 fire set by locomotive.	Pending.
July 9		J. J. Van Sickle.	Set fire without a permit.	Paid fine, \$25.00.
July 11		J. J. Van Sickle.	Set fire without a permit.	Released with a warning.
November 9, 1917.	L'ndon— New Providence	D., L. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$2.00.
November 9		D., L. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$3.00.
November 14		D., L. & W. R. R.	1 fire set by locomotive.	Paid firewarden's bill, \$3.20.
April 6, 1918.		W. H. Rogers.	Set fire without a permit and allowed it to escape.	Paid fine, \$25.00.

FIREWARDEN'S REPORT.

March 17	Warren—	Bertzel Lance	Set fire legally and allowed it to escape	Paid firewarden's bill, \$6.00.
March 23	Blairstown	N. Y., S. & W. R. R.	1 fire set by locomotive	Claim withdrawn.
April 1	Hope	Ray Banghart	Responsible for a forest fire	Pending.
November 10, 1917,	Knowlton	N. Y., S. & W. R. R.	1 fire set by locomotive	Paid firewarden's bill, \$4.00.
November 15		D., L. & W. R. R.	1 fire set by locomotive	Paid firewarden's bill, \$25.00.
March 3, 1918		D., L. & W. R. R.	1 fire set by locomotive	Paid firewarden's bill, \$9.00.
March 13		N. Y., S. & W. R. R.	1 fire set by locomotive	Pending.
March 16		N. Y., S. & W. R. R.	1 fire set by locomotive	Pending.
March 16		L. & N. E. R. R.	1 fire set by locomotive	Pending.
March 17		N. Y., S. & W. R. R.	1 fire set by locomotive	Pending.
March 18		N. Y., S. & W. R. R.	1 fire set by locomotive	Pending.
March 20		N. Y., S. & W. R. R.	1 fire set by locomotive	Pending.
March 23		D., L. & W. R. R.	1 fire set by locomotive	Paid firewarden's bill, \$8.00.
March 27		D., L. & W. R. R.	1 fire set by locomotive	Paid firewarden's bill, \$1.00.
March 28		L. & N. E. R. R.	1 fire set by locomotive	Pending.
March 29		L. & N. E. R. R.	1 fire set by locomotive	Pending.
March 30		Miss Emma Shannon	Set fire without a permit and allowed it to escape	Paid firewarden's bill, \$40.18.
October 23		N. Y., S. & W. R. R.	1 fire set by locomotive	Pending.
December 21		N. Y., S. & W. R. R.	1 fire set by locomotive	Pending.
March 16	Pahaquarry	N. Y., S. & W. R. R.	1 fire set by locomotive	No claim; bill too tardy.
March 17		N. Y., S. & W. R. R.	1 fire set by locomotive	No claim; bill too tardy.
March 22		N. Y., S. & W. R. R.	1 fire set by locomotive	No claim; bill too tardy.
March 26	Washington	D., L. & W. R. R.	1 fire set by locomotive	No claim; bill too tardy.
March 22	White	Wm. Percival	Set fire without a permit and allowed it to escape	Paid fine, \$9.00.

Appendix A

Preliminary Report on Potash Exploration in New Jersey Greensands

GEORGE R. MANSFIELD, U. S. GEOLOGICAL SURVEY.¹

The work on which this preliminary report was based was undertaken shortly before the signing of the armistice as a part of the general exploration of possible sources of potash, a subject of keen interest at that time both to the United States Government and to many individuals.

The New Jersey greensands had long been known to contain potash, but it had been considered impracticable to extract the potash commercially because of the relatively insoluble character of the mineral in which the potash is locked up. Of late years, however, there has been considerable experimentation in processes of potash extraction from silicate minerals and the New Jersey greensands, which are silicates, have attracted attention because of their accessibility, abundant supply, and relative ease of mining.

Although much general information about the greensands was available, there was little specific knowledge regarding the quantity, thickness, and character of the deposit at any given place, and little about the thickness and character of the accompanying overburden. The purpose of the work, therefore, was to secure data sufficient to permit tonnage estimates of limited areas, favorably situated for commercial enterprise, and to determine the nature and thickness of the overburden in those areas.

The investigation was begun at the instance of the United States Geological Survey, but the New Jersey Department of Conservation and Development cooperated with the understanding that the expense of the work should be divided as nearly equally as possible between the State and the Federal Survey. The money actually expended in field work amounted to \$2,884, of which the State paid \$1,550 and

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the Survey \$1,334. The Survey, however, furnished the time of the field geologist and the numerous chemical analyses, and assumed the other expenses incidental to the preparation of the report. The State Geologist, Dr. Kummel, and his staff rendered every possible assistance, through consultation, access to unpublished data, and use of office facilities and guidance in the field.

The potash occurs chiefly in the mineral glauconite which constitutes the green grains of the greensand beds of the marl belt. The marl belt is part of the New Jersey coastal plain, which in turn is the northern extension of the great coastal plain that extends along the Atlantic and Gulf seaboard. Glauconite deposits occur in greater or less abundance in other parts of this plain, but according to present knowledge the glauconite beds of New Jersey are probably richer in potash than those elsewhere.

The coastal plain in New Jersey has long been cited as an example of the belted type with inner lowland, infacing slope, outfacing slope and outer lowland, caused by the erosion of a succession of gently dipping strata of somewhat unequal degrees of coherence or hardness, and by the development of drainage upon these strata.

The marl beds lie near or at the top of the infacing slope with a strike of about N. 55° E., and a southeasterly dip estimated by Knapp at about 33 feet per mile. Their position is thus relatively near the Delaware River, which occupies much of the inner lowland, and their drainage is in general toward that lowland. Several of the creeks that cross the marl beds, such as Rancocas or Crosswicks creeks, are large enough to serve if necessary for transportation. However, the presence of large cities, such as Philadelphia, Trenton, New Brunswick, and New York along the general line of the inner lowland, and of attractive seashore resorts, such as Atlantic City, Asbury Park, and Seabright along the outer margin of the coastal plain, has caused numerous railroads to cross the marl belt so that the factor of water transportation has at present relatively small importance.

The greensand marl belt extends across the State of New Jersey from the vicinity of Sandy Hook at the northeast to the Delaware River near Salem at the southeast, a distance of nearly 100 miles. The breadth of the belt varies from nearly 14 miles in Monmouth County at the northeast to a mile or less in parts of Gloucester County in the southwest part.

The greensand marl beds of New Jersey, with one exception, are of Upper Cretaceous age and are described in reports of the Geological Survey of New Jersey¹. They are indicated in the accompanying table.

CRETACEOUS AND EOCENE FORMATIONS OF NEW JERSEY.

Age	New Jersey	Thickness feet
Eocene	Shark River marl	0+- 11
	Manasquan formation	25
	Rancocas group:	
	Vincentown sand	25- 70
	Hornerstown marl	30
	Monmouth group:	
	Redbank sand, including at top Tinton sand member (10-20 feet thick)	0-100
	Navesink marl	25- 40
	Mt. Laurel sand	5- 60
	Matawan group:	
Upper Cretaceous	Wenonah sand	40±
	Marshalltown formation	35
	Englishtown sand	20-100
	Woodbury clay	50
	Merchantville clay	60
	Magothy formation	25-175
	Raritan formation	150-500

All the Cretaceous formations in New Jersey above the Raritan are to some extent glauconitic. In the Woodbury clay and Marshalltown formation the greensand is locally abundant and has even been dug for fertilizer. These formations are parts of what was called by Cook the "Clay-Marl series." The formations that are most uniformly glauconitic, and hence most important commercially, are the Navesink, Hornerstown and Manasquan marls. The Navesink, 25 to 40 feet thick, corresponds in general to the Lower Marl of Cook, although certain beds included by him in that formation are now

¹See especially J. Volney Lewis and Henry B. Kümmel, *The Geology of New Jersey: Geol. Survey New Jersey Bull. 14* (with accompanying map), 1915.

referred to the Marshalltown. The Hornerstown, about 30 feet thick, and the overlying Vincentown, 25 to 70 feet thick, constitute the Middle Marl of Cook. The Manasquan represents two of the three members of Cook's Upper Marl bed, namely, the so-called green and ash marls, which are respectively 13 to 17 and 8 to 12 feet thick.

Above the Manasquan comes the Shark River marl, 11 feet thick, in apparent conformity with the Manasquan but really unconformable. This corresponds with the "blue marl" of Cook's Upper Marl bed and is of Eocene age. It occurs only in a few places in Monmouth County and has little commercial importance.

Glauconite occurs locally in some of the overlying Tertiary and Quaternary beds as a result of the erosion and redeposition of material from the Cretaceous beds. At some places, as for example at Somerdale, about 9 miles southeast of Camden, these reworked glauconite beds overlie Cretaceous greensand beds and may readily be mistaken for them. Closer inspection of the reworked material, however, reveals pebbles scattered through its mass and usually a more or less well defined layer of pebbles at its base.

The greensand beds are in general unconsolidated deposits consisting of variable proportions of glauconite, clay, quartz, and probably small fragments of a variety of other minerals.

In the northeastern part of the belt in Monmouth County the three principal marl beds are distinct, the Redbank sand, with its Tinton member, separating the Navesink marl from the Hornerstown, and the Vincentown sand separating the Hornerstown from the Manasquan. The presence of all these beds in full development explains the great breadth of the marl belt in Monmouth County.

The Tinton beds, which represent the indurated upper portion of the Redbank sand, lose their distinctive character southwestward and the Redbank sand itself becomes indistinguishable near Sykesville in the northern part of Burlington County. Thus southwest of that point the Hornerstown and Navesink marls merge in a single formation in which both faunas may be recognized, but the respective parts of the formation are not clearly differentiated. Similarly the Manasquan marl practically disappears at a point about 4 miles southwest of Medford in Burlington County. It has been recognized about 8 miles farther southwest in a small exposure near Clementon in Camden County. Thus southwest from the vicinity of Marlton in Burlington County the marl belt includes only the combined bed of

Navesink and Hornerstown and the Vincentown sand, which in that portion of the belt is locally quite calcareous.

In the days when Cook wrote his general report on the geology of New Jersey, published in 1868, the marl business was flourishing, marl pits were open, and shipping was in progress at many points all along the marl belt. With the introduction of prepared fertilizers and the decline of the marl industry most of the pits were abandoned and given over to water, swamps and vegetation. The sides or banks have slumped and are now overgrown with brush and trees, some of which have trunks 3 to 6 inches in diameter.

At a few pits, notably at Sewell and at Birmingham, digging is in progress or has been within a year or two. These pits give excellent exposures of portions of the beds but do not afford complete sections. Exposures in road cuts give only partial sections and are seldom fresh. The same statement is true regarding stream valleys, except that the shell beds are locally well exposed in such places and thus furnish definite information about the position of the top or bottom of a bed.

Pleistocene beds overlie the greensand deposits in greater or less thickness almost everywhere along their outcrop and are locally difficult to distinguish from them. Tertiary beds are also present as part of the overburden in many places, as at Sewell. Complete sections of fresh material may be had only by boring. For this work doubtless the auger would suffice at many localities, but at others closely packed gravel and pebbles, loose wet greensand, heavy shell beds or firmly cemented layers offer obstacles that only the drill may overcome.

The field work included a number of trips into various parts of the region occupied by glauconite deposits but consisted chiefly in drilling operations, during which 19 holes varying in depth from 9 to 70 feet were sunk, generally into or through the greensand marl beds. The average depth of the holes was 37 feet. Observations were made on the character and thickness of the materials penetrated and samples for analysis were collected. In addition numerous well records were gathered.

The contract for boring the holes was let to Samuel J. Taylor of Mount Holly, New Jersey, under whose direction 16 of the holes were sunk. The other 3 holes were bored on the property of Norcross and Edmunds at Birmingham and Pemberton and were made

possible by the courtesy of A. J. Mullen, superintendent of the company, who supplied men and tools for the work.

The 16 borings under contract were made in the combined Hornerstown and Navesink marls at five localities, namely, Salem and Woodstown in Salem County; Sewell in Gloucester County; Somerdale in Camden County; and Elmwood Road in Burlington County. The distances between successive localities range from 8 to 12½ miles. At each locality an area 330 feet square and containing 2½ acres was selected. A hole was placed at each end of one side of the square and a third hole as a check at the middle of the opposite side. Of these 16 holes, 12 afford complete sections from the surface through the marl beds.

Some of the stratigraphic data furnished by the borings are given in a forthcoming paper¹. A complete report is now in preparation embodying the stratigraphic details of the different borings, data from numerous wells, computations based on measurements and many analyses, both chemical and mechanical, together with a general discussion of the New Jersey marl beds as a possible source of commercial potash. A special feature of the report will be a map of the marl belt on the scale of one inch to the mile prepared from the unpublished manuscript maps of G. N. Knapp, formerly of the Geological Survey of New Jersey.

¹Mansfield, G. R., General features of the New Jersey glauconite beds. Manuscript accepted for publication by Economic Geology.

Appendix B

Our Mineral Industry in 1918

M. W. TWITCHELL, ASSISTANT STATE GEOLOGIST.

General statement.—The brief summary regarding the mineral production of New Jersey in 1918 which is here given indicates that the State has just about held the advanced ground which it had attained in 1917 in the mineral industry field. The *total production* in 1918 was valued at \$48,519,476. This is \$3,002,998 more than the total value for 1917. However, the increase was more apparent than real and is largely due to differences in policy in the inclusion of certain items not included in 1917. In 1917 large increases over 1916 were noted in clay and clay products, iron ore, sand and gravel, and stone; but in 1918 the total for clay and clay products showed a decrease of \$1,727,539 and the total for iron ore showed a decrease of \$395,509. On the other hand in 1918 sand and gravel showed a further increase of \$437,540, and stone showed a further increase of \$339,722. The increases are in nearly all cases in the values, rather than in the quantities, and reflect the higher unit prices prevailing.

Our rank among the States.—For its size New Jersey ranks high among the states in production of minerals and mineral products. Though forty-sixth in area, it ranks *third* in the *value per square mile* of its mineral output, being preceded only by West Virginia, ranking second and Pennsylvania, which stands first. Even on the basis of the *total value* of output, New Jersey ranks *fifteenth*, standing ahead of not only most of the other small states but ahead of all except the great coal-mining states Pennsylvania, West Virginia, Illinois, Ohio and Indiana; the great metal-mining states California, Michigan, Arizona, Montana, Missouri, Colorado, Utah and Minnesota; and great oil state Oklahoma. New Jersey's high rank is chiefly due to its great output of clay and clay products, though its zinc ore aids materially and in a lesser degree its coke, Portland cement, sand and gravel, mineral pigments, trap-rock and magnetic iron ore. The value of New Jersey's mineral products is twice as

great as that of Wisconsin or Louisiana, three times as great as Wyoming or Washington, nearly four times as great as Maryland and more than twelve times as great as that of North Carolina or Oregon. These statements are based on the figures of the U. S. Geological Survey for 1915. • Those for 1916 confirm them. Comparative figures for 1917 and 1918 are not yet available, but are not likely to change these facts materially. Surely these are facts that citizens of New Jersey should be proud of and should make more widely known.

Cooperative collection of statistics.—The figures included in the following statistical statement of the mineral production of New Jersey during 1918, were collected jointly by the Department of Conservation and Development and the United States Geological Survey, a cooperative method which possesses several advantages and has proven highly satisfactory for a number of years past.

Zinc ore.—The zinc mines in Sussex County, owned and operated by the New Jersey Zinc Company, make this State rank second in the production of *Zinc ore*, Oklahoma now ranking first and Missouri third. These mines, one located at Franklin Furnace and the other at Stirling Hill, near Ogdensburg, produced in 1918, 668,449 tons of crude zinc ore, which was 52,112 tons less than in 1917. This year's output makes the total quantity of zinc ore which has been taken from the mines of New Jersey since 1880, 8,862,830 short tons. The crude ore is crushed at Franklin and separated into several types by powerful electro-magnets, and the gangue removed by jigs and tables. The ore is shipped to the company's smelters at Palmerton, Pennsylvania. The chief products made from it at Palmerton are metallic zinc and zinc oxide.

The residue remaining from the smelting of some of the New Jersey Zinc ore (chiefly the mineral *franklinite*) contains about 15 per cent of manganese and 40 per cent of iron. The quantity of this *manganiferous zinc residuum* produced in 1918 was 146,796 long tons; while in 1917 it was 155,332 long tons. This residuum is not sold in the open market but is first reduced to *spiegeleisen* and then disposed of for use in the making of steel. As we credit the value of the crude zinc ore, we do not include the value of this *manganiferous zinc residuum* in either our "Miscellaneous" or our total for all products.

Iron Ore.—There was a decrease in both the quantity and value of the iron-ore production in 1918 as compared with 1917. Five companies were active including the Empire Steel and Iron Com-

pany, which operated the Mount Hope Mine in Morris County and the Washington Mine in Warren County; the Ringwood Company, operating the Peters Mine and Cannon Mine in Passaic County; the Thomas Iron Company, operating the Allen Mine and Richard Mine in Morris County; the Wharton Steel Company, which operated the Scrub Oak Mine in Morris County and the Hoff Mining and Improvement Company, operating the Hoff Mine in Morris County. The total quantity of ore mined by the five active companies was 423,525 long tons, a decrease of 66,418 tons, as compared with 1917. The amount marketed in 1918 was 375,238 long tons, having a value of \$1,945.651, a decrease in quantity of 99,470 tons and in value of \$395,509. The average value per ton was \$5.18, which was higher than at any time in many years. In 1917 the average value per ton was \$4.93 and in 1916, \$3.55 which was the greatest it had been for over ten years. The total amount of iron ore which has been mined in New Jersey since 1870 is 22,296,878 long tons.

Pig Iron.—New Jersey ranked 13th among the States in 1918 in the production of pig iron. Its output was 222,418 long tons, valued at \$7,611,885. In 1917 the output was 187,753 long tons, so there was an increase in quantity of 34,665 long tons. In 1917 the value was included under "Miscellaneous." A considerable portion of this production was from New Jersey iron ore, smelted at blast-furnaces in the State. In view of this fact the value for pig iron is not included in our total for all products as it would involve a partial duplication of values.

Clay and clay products.—New Jersey continues to lead the States in the mining and marketing of *raw clay*. Its output in 1918 was 286,474 short tons, having a value of \$1,068,572. This was 93,888 tons less in quantity; but the value was not only equal to the record value of the preceding year but slightly greater, namely, \$32,869. The average price per ton in 1917 was \$2.72 while in 1918 it was \$3.73. As in past years the chief variety of clay produced was fire clay, the output of which was 240,268 short tons, with a value of \$918,390. The value of the *pottery* produced in New Jersey in 1918 was \$12,570,842 which is slightly—\$34,999—greater than in 1917. Sanitary ware, in which the State leads the country, stood first, of course, with an output valued at \$6,151,752. This was \$1,050,919 less than in the preceding year. The other varieties of pottery showed increases, the chief gains being in porcelain electrical supplies and in chemical ware. The total value of the *brick and tile*

made in this State in 1918 was \$8,197,982, which was \$1,795,407 less than in 1917. There were decreases in nearly all varieties; this too, despite the higher prices prevailing. The only exception was fire brick, which with about 2,000,000 less brick showed an increase in value of \$589,514. It is interesting to contrast this with the output of fire brick in 1913, when with 3,000,000 more brick the total value was \$1,634,119 less than in 1918. Another interesting contrast is presented in common brick in 1913 and 1918. In 1913 the quantity of common brick made in New Jersey was 401,702,000 and its value was \$2,391,287; in 1918 the quantity was only 152,783,000 and value \$1,672,832. The average price per thousand in 1913 was \$5.95 and in 1918 it was \$10.94. If the common brick output of 1913 had been equalled in 1918 the total value would have been \$4,394,620. This emphasizes both the reduced output and higher prices of 1918. The total value for *clay products* in 1918 was \$20,768,824, which was \$1,760,408 less than in 1917; while the grand total for *clay and clay products* was \$21,837,396 in 1918 which was \$1,727,539 less than the preceding year.

Stone.—For several years the value of the *stone* production in New Jersey has steadily increased. The total output for 1918 was 1,639,427 short tons valued at \$2,212,477, which was 310,535 tons less in amount and \$339,722 more in value than that of 1917. On the other hand there has been a steady reduction in the output of certain varieties so that now the only kinds quarried in quantity are trap and limestone.

New Jersey leads the states in the production of *trap rock*, Pennsylvania standing second. Nearly all of the New Jersey output is crushed and sold for use in road-making, concrete and railroad ballast. In 1918 the total production of this State was 1,041,716 short tons valued at \$1,475,358, while in 1917 the quantity was 1,404,479 tons and value \$1,372,956. Therefore there was a decrease in quantity of 363,763 tons and an increase of \$102,402 in value over 1917. In the pre-war year 1914 the total production of trap rock was 1,460,497 short tons, and the value \$1,164,529; so the tonnage of 1918 was 418,781 less while the value was \$310,829 more than in 1914. The average price per ton in 1914 was 80 cents, in 1917 it was 97 cents and in 1918, \$1.41. In view of the above data it is clear that in this as in many other industries, the increased values of 1918 were due to higher prices rather than to greater production.

The total output of *limestone* in New Jersey in 1918 was 553,546

short tons valued at \$674,397, which was 71,998 tons more in quantity and \$260,920 more in value than in the preceding year. The increase in tonnage in this case is largely due to the fact that most of the limestone quarried was for use as blast furnace flux. The increased activity in the limestone industry here reflected the increased activity in the iron industry due to the great war.

Portland cement.—The New Jersey plant of the Alpha Portland Cement Company, formerly one of the largest producers in the State, continued idle throughout 1918. The Edison Portland Cement Company at New Village, and the Vulcanite Portland Cement Company at Vulcanite, were both in active operation. If the Alpha plant had been as actively operated as formerly, the value of the State's production of cement in 1918 would probably have been unusually large. Of course this would have been in large measure due to the higher price, owing to abnormal conditions more or less directly connected with the war. The average price per barrel in 1918 was \$1.552, while in 1917 it was \$1.236 and in 1913 only \$0.855. As there were but two active producers it is impracticable to publish the cement figures, and the value of the output for 1918 is therefore included under "Miscellaneous."

Sand and gravel.—This ranks high among our mineral industries. It also involves many producers and is carried on in nearly all parts of the State. The total quantity of sand and gravel produced in New Jersey in 1918 was 3,579,862 short tons, valued at \$2,462,864, which involved a decrease in amount of 202,595 tons and in value of \$437,540 as compared with the preceding year. There was a decrease in the output of *building sand* of 69,699 short tons, but an increase in value of \$144,772; a decrease in the quantity of *molding sand* of 169,909 short tons, but a decrease in value of only \$34,642; an increase in the quantity of *glass sand* of only 39,544 short tons, but an increase in value of \$149,568; a decrease in the quantity of *grinding and polishing sand* of 47,917 short tons, but a decrease in value of only \$6,222; an increase in the quantity of *paving sand* of 58,679 short tons and an increase in value of \$47,251; a decrease in the quantity of *fire or furnace sand* of 56,497 short tons and an increase in value of \$20,438; a decrease in the quantity of *engine sand* of 2,009 short tons, but an increase in value of \$10,606; and a decrease in the *total output of sand* of 295,888 short tons, but an increase in the value of \$276,106.

Coke and fuel briquets.—While New Jersey has no coal deposits

it does produce considerable *coke* as a by-product in gas manufacture. For a number of years the Camden Coke Company, at Camden, was the only producer; but a new and active operator recently entered the field, namely, the Seaboard By-Product Coke Company of Kearny. The total quantity of by-product coke produced in New Jersey in 1918 was 682,148 short tons. The value cannot be separately published, but is included under "Miscellaneous" and in the total for all products.

Within the past few years the manufacture of *fuel briquets* from anthracite culm has developed in New Jersey. The Fuel Briquet Company of Trenton, which started operations in 1916, but temporarily discontinued during 1917, was again active in 1918. Since there were less than three producers, the figures cannot be separately published but are included under "Miscellaneous" and in the total for all products.

Mineral pigments.—The total value of the mineral pigments produced in New Jersey in 1918 was \$5,026,109. The chief varieties made were the white barium-zinc pigment called lithopone and several forms of white lead. Formerly considerable zinc oxide was made in the State from New Jersey zinc ores; but all of the Jersey ore is now shipped outside the State before being made into zinc products. A small amount of zinc oxide is made in New Jersey; but the zinc in it, as is also the case with the lithopone mentioned above, comes from sources other than the zinc ores mined in the State. These facts have been only recently ascertained and we are now consequently including the value of all the zinc and lead pigments in our total for all products; in 1917 we included the lead pigments only. We are also now able to publish for the first time the total value for the mineral pigments; but are not at liberty to give detailed figures for the several kinds.

Peat and peat products.—In 1918 the peat industry of the United States continued the remarkable development which it has shown for several years past. This is primarily due to the growth of the peat fertilizer phase of the industry, which in turn has been due to increase in the acreage of land tilled, the more intensive cultivation of crops, the shortage in commercial fertilizers and the application of bacteriology to soil fertilization. Mr. C. C. Osbon, of the U. S. Geological Survey, remarked in 1918 "The condition of the fertilizer market, the unprecedented expansion of the peat industry in 1917,

¹Advance Chapter of Mineral Resources of the United States, 1917, Part II, p. 259.

and the good results reported by many who used peat for the cultivation of crops in that year warrant the expectation that the peat industry will soon occupy a high position among the mineral industries of the United States." The developments in 1918 tend to confirm this opinion. New Jersey is the leading state in the production of peat and peat products and the above remarks referring to the country in general apply directly to this State. The total quantity of crude peat mined in New Jersey in 1918 was 70,228 short tons. As nearly all of the producers of raw peat refine their entire output, the value of the raw product is difficult to estimate and we do not attempt to publish any such value for 1918. Of this 70,228 short tons, 44,010 short tons were in storage at the end of the year. The total amount of peat and peat products sold in New Jersey in 1918 was 26,218 short tons, valued at \$264,822. The figures for 1917 as published by this Department were larger; but as it is not certain that the statistics were prepared in the same way as for 1918, detailed comparison cannot be made.

Greensand marl and potash.—The greensand marl industry is showing signs of a real rejuvenation. The New Jersey output reported as sold or used by the producers in 1918 was 3,582 short tons, valued at \$4,775. While these figures are actually small they are relatively large as compared with those for a good many years past; and it is to be hoped, are prophetic of rapid gains in the near future.

Most of the greensand marl produced in New Jersey in 1918 was used in the production of potash salts at several experimental plants which were temporarily located outside of the State. The value of the potash salts produced, was, of course, considerably greater than that of the crude greensand marl; but this was actually produced outside of the State and as it was by only a few operators, the figures cannot be published. As one of these producers is now building a large plant within the borders of the State it is probable that in the near future the production of *potash salts* will be actually established on a large scale in New Jersey.

Other minerals and mineral products.—In addition to the minerals separately discussed above, New Jersey produced in 1918 small quantities of ground quartz, lime, manganese ore and gems. In most of these cases there were less than three producers and for this, or other reasons, the figures cannot be separately published.

Statistical table.—Details of the mineral production are given in the following table, which also presents the figures for the previous year for purposes of comparison.

Mineral Production in New Jersey in 1918.

Products	Pro- ducers	1918		1917	
		Quantity	Value	Quantity	Value
Metallic Minerals:					
Zinc ore (a)	1	668,449 s.t.	(a)	720,561 s.t.	(a)
Manganiferous zinc res- iduum (b)	1	146,796 l.t.	(b)	155,332 l.t.	(b)
Iron ore (c)	7	375,238 l.t.	\$1,945,651	474,708 l.t.	\$2,341,160
Pig Iron (d)	4	222,418 l.t.	7,611,885	187,753 l.t.	(d)
Manganese ore (e)	1	(e)	(e)	(e)	(e)
Non-Metallic Minerals:					
Clay—					
Fire and sagger clay...	35	240,268 s.t.	\$918,390	281,098 s.t.	\$815,507
Brick clay	8	(f)	(f)	38,563 s.t.	46,204
Stoneware clay	8	13,655 s.t.	51,202	12,041 s.t.	39,326
Ball clay	6	5,828 s.t.	33,347	5,118 s.t.	28,264
Miscellaneous (g)	14	26,723 s.t.	65,633	43,542 s.t.	106,402
Total raw clay (h) ..	42	286,474 s.t.	\$1,068,572	380,362 s.t.	\$1,035,703
Pottery—					
Sanitary ware	19	.....	\$6,151,752	.....	\$7,202,671
Electrical supplies (i) ..	16	.....	2,437,133	.....	1,893,382
China, belleek, etc.. (j),	6	.....	1,563,181	.....	1,632,622
White ware, etc. (k) ...	7	.....	1,239,069	.....	1,040,697
Chemical ware (l)	4	.....	745,741	.....	472,681
Miscellaneous (m)	17	.....	433,966	.....	293,790
Total pottery	56	.....	\$12,570,842	.....	\$12,535,843

a. The quantity figure is the crude ore mined. As there is but one zinc operator, the value cannot be given separately, but is included in the total for "Miscellaneous," the value so included being that of the crude ore only, as furnished by the producer. See further under note bb below.

b. This is smelted in Pennsylvania from the zinc ore mined in New Jersey. The value cannot be separately published. We do not include it in the total for all products. See further under note bb below.

c. Practically all magnetic iron ore. The quantity given is the ore marketed. The quantity of ore mined in 1918 was 423,525 long tons, and in 1917, 489,943 long tons.

d. Partly from ore mined in New Jersey. We do not include it in our total for all products. In 1917 the value was included under "Miscellaneous." See further under note bb below.

e. The New Jersey Manganese Company (formerly the Annandale Mining Company) operated a mine in Hunterdon County. The value is included under "Miscellaneous."

f. Included in miscellaneous clay in 1918.

g. Includes slip clay, foundry clay, crucible clay, clay for abrasive wheels, pencils, etc. In 1918 brick clay also. See further under note bb below.

h. Part of this is sold to clay product manufacturers in New Jersey and part is shipped to parties outside the State.

i. Porcelain electrical supplies.

j. Includes china, bone china, delft and belleek.

k. Includes whiteware, C. C. ware, white granite, semi-porcelain ware and semi-vitreous porcelain ware.

l. Chemical stoneware and porcelain.

m. This year there is included here red earthenware, stoneware, yellow and Rockingham ware; also tobacco pipes, hardware trimmings, art pottery, souvenirs, sagers, etc.

Mineral Production in New Jersey in 1918—Continued.

Products	Pro- ducers	1918		1917	
		Quantity	Value	Quantity	Value
Brick and tile—					
Fire brick	17	40,202 M	\$2,880,413	42,065 M	\$2,290,899
Common brick	38	152,783 M	1,672,832	205,794 M	1,843,246
Front brick	5	.....	290,598	.....	682,014
Enameled brick					
Fancy brick					
Total brick	49	.....	\$4,843,843	.....	\$4,816,159
Fireproofing, etc (n) ..	8	180,127 s.t.	\$1,573,829	302,648 s.t.	\$2,167,296
Architectural terra-cotta,	6	.....	387,597	.....	1,322,202
Tile (other than drain),	12	.....	872,879	.....	1,301,960
Drain tile	5	.....	25,315	.....	31,300
Miscellaneous (o)	12	.....	494,519	.....	354,472
Total tile, etc.	38	.....	\$3,354,139	.....	\$5,177,230
Total brick and tile..	79	.....	\$8,197,982	.....	\$9,993,389
Total clay products...	143	.....	\$20,768,824	.....	\$22,529,232
Total clay and clay products	180	.....	\$21,837,396	.....	\$23,564,935
Stone—					
Trap (p)	41	1,041,716 s.t.	\$1,475,358	1,404,479 s.t.	\$1,372,956
Limestone (q)	15	553,546 s.t.	674,397	481,548 s.t.	413,477
Other stone (r)	10	44,165 s.t.	62,722	63,935 s.t.	86,322
Total stone	66	1,639,427 s.t.	\$2,212,477	1,949,962 s.t.	\$1,872,755

n. Includes fire proofing and hollow blocks.

o. Includes sewer pipe, stove lining, gas logs, wall coping, conduits, flue lining, glass house pots and other glass house supplies and clay bombs for war purposes.

p. The quantity figures are for all forms of trap rock. They have involved transposing of other unit values into short tons, in a few cases, and may therefore be slightly in error. We have usually published the tonnage of crushed stone only.

q. Chiefly limestone for blast furnace flux, with smaller amounts used for agricultural purposes, road making, etc.

r. Includes granite, sandstone, argillite, slate, and talc and serpentine which have to be combined in order to conceal individual production in certain cases. The quantity figures, which are here given for the first time, may be slightly in error, as they involve transposing of other unit values into short tons in a few cases.

Mineral Production in New Jersey in 1918—Continued.

Products	Pro- ducers	1918		1917	
		Quantity	Value	Quantity	Value
Sand and gravel—					
Building sand	28	1,748,576 s.t.	\$690,209	1,818,275 s.t.	\$545,437
Molding sand	28	442,007 s.t.	626,637	611,916 s.t.	651,279
Glass sand	4	139,992 s.t.	242,762	100,448 s.t.	93,194
Grinding and polishing sand	5	47,824 s.t.	121,022	95,741 s.t.	127,244
Paving sand	5	180,280 s.t.	104,976	121,601 s.t.	57,725
Fire or furnace sand ...	14	62,185 s.t.	100,857	118,682 s.t.	121,295
Engine sand	4	56,543 s.t.	40,925	58,552 s.t.	30,319
Other sands (s)	4	21,709 s.t.	41,756	69,789 s.t.	66,545
Total sand	54	2,699,116 s.t.	\$1,969,144	2,995,004 s.t.	\$1,693,038
Gravel	25	880,746 s.t.	493,720	787,453 s.t.	332,286
Total sand and gravel,	58	3,579,862 s.t.	\$2,462,864	3,782,457 s.t.	\$2,025,324
Zinc and lead pigment					
(t)	4	.....	\$5,026,109	.....	(t)
Peat (u)	4	26,218 s.t.	\$264,822	(u)	(u)
Mineral waters (v)	13	1,134,848 gal.	\$110,150	1,283,156 gal.	\$115,118
Greensand mari (w)	5	3,582 s.t.	\$4,775	(w)	(w)
Miscellaneous (aa)—					
Briquets, fuel (x) ...	12	.....	\$14,655,232	.....	\$24,196,511
Cement, Portland (y)					
Coke (z)					
Gems					
Lime					
Manganese ore (e) ..					
Quartz, ground					
Zinc ore (a)					
Total of all products					
(bb)	350	.....	\$48,519,476	.....	\$45,516,478

s. Includes filter sand and sands whose uses are not specified.

t. Chiefly lithopone and white lead. Included in "Miscellaneous" in 1917 and prior years.

u. The quantity and value given are for sales of peat products only. The total quantity of crude peat dug was 70,228 short tons; but 44,010 tons were placed in storage. The figures for 1917 are not republished as they appear to have been prepared on a different basis.

v. In addition to the figures of sales as given in the table, 47,264 gallons from these 13 springs were used in the manufacture of soft drinks. In 1917 the amount so used was 73,605 gallons.

w. Includes marl sold in the crude form, largely for experimental purposes, also some used directly by the producers in making *potash salts* at plants in New York and Pennsylvania. In 1917 the production of greensand marl was included under "Miscellaneous."

x. Made from anthracite coal mined outside of the State. See further under note bb below.

y. Two producers only, so figures cannot be separately stated.

z. By-product coke made from coal mined outside of the State. See further under note bb below.

aa. Under this head in 1917 we included coke, greensand, marl, ground quartz, zinc and lead pigments, Portland cement, precious stones, zinc ore and pig iron.

bb. This includes all the items in the above table except the pig iron and man- ganiferous zinc residuum; which are omitted because made in whole or in part from crude iron or zinc ore, the value for which has already been included. We

include coke and fuel briquets, because we do not thereby duplicate values, none of the coal used having been mined in nor credited to New Jersey. The same is true of the inclusion of zinc and lead pigments, for so far as we are able to ascertain practically none of the metals in them come directly or indirectly from ores mined in and credited to New Jersey. We include raw clay because considerable of it is sold to parties outside the State. The U. S. Geological Survey will omit from its total for New Jersey the value of the pig iron, coke, fuel briquets and lead and zinc pigments because it credits the value of the raw products to other States. It omits the value of raw clay because the clay products in which it is used are already credited either to New Jersey or other States. In the case of zinc we include in our total the value of the crude ore only as the metallic zinc, zinc oxide and manganiferous zinc residuum made from it are produced outside the State; but it is the policy of the Federal Survey to credit New Jersey with the potential value of its zinc ore, i. e., with the value of the recoverable zinc content of the ore and the value of the manganiferous residuum obtained from it. In view of the above difference of policy our total for all products can never be brought into exact agreement with that published by the Federal Survey. If we had compiled our total value for 1918 along the same lines as the Federal Survey it would have been about \$49,502,744 instead of \$48,519,476, a difference of \$983,268. Some years the difference has been much greater.

